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1958

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PRESIDENT'S ADDRESS

1957

Some Critical Issues In Physical Education

Arthur S. Daniels
Indiana University

I. The Problem.

Last year in his President's Address, E. B. Smith made an analysis of this Association with respect to its history, present activity and future prospects. In this address, I would like to take a look at our profession, spotlighting some issues with which I feel we must deal successfully now and in the immediate future.

We are still young as professions go. There is no assurance, however, that time alone will guarantee an ultimate high place in our culture for physical education. Successful administration, sound research, authoritative literature, good teaching, and communication with our educational and lay contemporaries must be accomplished in the long climb to professional maturity.

Whether or not we achieve full professional stature depends on how well we deal with certain issues and opportunities now confronting us. We are still some distance away from acceptance as the authoritative professional group in school health, physical education and recreation. In fact, we are still faced with the need to justify our very existence in the educational program in some of our universities. In a report given at the 59th Annual Meetings of this Association in 1955 at Daytona Beach, I stated that in the last two instances involving the problem of fitness at the national level, (World War II and the White House Conference on Fitness of American Youth) our professional associations were neither the initial nor primary sources of aid sought. Why? What is lacking? I should add here that in the war effort our people rendered excellent service when they finally worked their way into the military fitness programs. And in the present fitness plans and programs they are giving solid aid to the President's Council and the Advisory Committee on Fitness of American Youth.

My thesis this afternoon is not one of damaging self-criticism or defeatism. Rather, it is a critical look and the pointing out of a challenge. I presume we could delineate a list of issues and problems facing any of the established professions. Successful dealing with such problems, however, is apparently the price of progress. In our own professional area there is an urgency because we have been identifiable on the educational and social scene for some seventy-five years. Yet we are still a considerable distance away from our goals of effectiveness and status.

The expense of conducting our phase of the educational program in schools and colleges is great. Health, physical education and recreation facilities, both indoor and outdoor, comprise about 25% of the cost of the secondary school plant. In colleges and universities the cost of the physical plant in our area may run as high as twenty million dollars. Involved here are gymnasiums, intramural buildings, recreation buildings, natatoriums, field houses, basketball arenas, stadiums and outdoor swimming pools.

There has been criticism of American education in recent years. There is a strong lay feeling that in the process of educating boys and girls, American education must also render key help in the solution of international as well as national problems. With educational costs rising, the public is more demanding of results and impatient with the failure to produce solutions and satisfy needs. The American public will not continue to support a phase of education in which it does not believe whole-heartedly, or if it does not understand it, or if it does not value it sufficiently high. It is my belief we must deal realistically and successfully with certain problems now before us if we are to continue moving toward our professional goals.

In selecting the issues to bring before you in this paper, there were a number from which to choose. I could have chosen the need to continue the efforts to develop a workable plan of accreditation for the institutions offering graduate and undergraduate education in our field. I could have picked the problem of recruiting greater numbers of higher calibre students for our professional schools. There are others which might have been selected.

From the matters which I feel merit serious consideration, I chose the following:

The first and most serious, is the gap which exists between what we know about physical education and how we practice it in our schools and colleges. I will devote more time to this problem than to the others.

The second is the failure to identify physical education in the minds of the American people more closely with the sports movement for all age levels.

The third is the need for a better understanding of the relationship of fitness to health, physical education and recreation, achieving a reasonable uniformity regarding this understanding and working cooperatively and actively toward generally accepted fitness goals.

The fourth proposal is that we undertake cooperative, interdisciplinary research on the role of sport in American Society in order to understand more fully how this important element of the culture may serve our people more effectively.

II. The Gap Between Knowledge and Practice

There is always a gap between theory and practice; intentions and actions. This is common in personal living as well as in our social institutions and the various levels of government. Achieving a potential is more difficult than developing plans or thinking about goals.

The gap discussed here is more than the normal one between theory and practice — so much so that it constitutes a serious threat to progress and even the continued existence of physical education in our schools.

Before I go any further it must be recognized that the same problem exists in varying degrees in other phases of the school program, particularly English, science, and mathematics. Despite criticisms of inadequacy, suggestions are not forthcoming that these three basic subjects be dropped from the curriculum. Each curriculum area must solve its problems, using whatever resources may be brought to bear in the solution.

In the past ten years, I have had considerable field experience, visiting many schools in Ohio. In addition I have discussed the matter with many of my colleagues from other states in the Midwest, in the South and in the Far West. Many share the concern expressed here — that we are disturbingly far from approaching our potential regarding good school physical education programs.

One might be tempted to dismiss these concerns as the worries of ivory tower university professors who do not know the nature of the problems in the field. Bookwalter[1] in a five year study involving 2,648 high schools in 25 states, using the Laporte Score Card, concluded that nationally, our programs are only 28% effective. In his study over three-fourths of the schools were below 50% of the total possible scores on the score card. Bookwalter's findings remove the problem from the realm of opinion.

There is a tremendous difference in what we teach in our professional education programs at the university level and the manner in which physical education is practiced in our schools.

We have developed a philosophy and principles which are sound, practical, scholarly, scientific and capable of standing up under critical analysis. Yet many of our teachers are not articulate regarding their own philosophy. We have failed to communicate this philosophy to our school administrators, and to our publics. They have little understanding of the nature and values of modern physical education. There is indifference, sometimes antagonism, and certainly a lack of appreciation of "P.E.," "Phys. Ed" and "Gym".

This lack of communication between our people, school administrators and the public, is a barrier to the understanding which must precede appreciation and support. It leads to such problems as unwarranted medical excuses and substitution for physical education of unlike activities as the marching band, R.O.T.C., and military service. Many college departments are even asked to excuse the "over age" (25 years) student.

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[1] Karl Bookwalter, National Survey of Health and Physical Education in High Schools 1950-54. Bloomington, Indiana Bureau of Service and Research, School of Health, Physical Education, and Recreation. 1955, 32 pp. Mimeo.

We have a well developed philosophy and sound principles. In our professional education programs, we must make it possible for our graduates to become more articulate by requiring more speaking and writing in our classes. They must also be impressed with the need for engendering greater understanding of physical education in their school and community.

We have also developed workable administrative plans for the organization and conduct of physical education in secondary schools and colleges. We have proposed reasonable standards regarding time allotment, class size, and class management; and good policies regarding health prerequisites, costumes and excuses and absences.

Yet there are too few schools where good practices are the rule instead of the exception. In most instances where the recommendations of the State Department of Education are followed at all, the minimum standards are accepted as the maximum. We find classes too large for good teaching, too many questionable excuses, too few instances where students are appropriately costumed, where a cleansing bath follows activity.

The curriculum is perhaps the area where the gap between knowledge and practice is greatest. In recent years, we have developed and published some excellent curriculum materials for each school level, (primary, elementary, junior high school, senior high school, and college). We have stressed the human growth and developmental needs approach. In our writings we have been considerate of developmental levels, pupil capacities, limitations and interests. The variety of curriculum suggestions is broad - aquatics, lead-up games, low organized games, rhythmical activities, self-testing activities, camping and outdoor education, adapted activities, social recreation programs, team sports and individual and dual sports.

Many field visits, however, reveal that in too many schools, physical education is touch football in the fall, basketball in the winter and softball in the spring. And it's the same for grades five through twelve.

We must find ways of putting into practice what we know about a good curriculum. This has been done in some of our larger cities and a few of our progressive smaller communities. This is not merely a problem for the teachers in local communities. It is a problem for all of us. To solve it there must be closer working relationships between teacher education personnel, State Departments of Education, state associations of health, physical education, and recreation, and administrators and teachers in the community. In the final analysis the local administrators and teachers must conduct a program at the highest level which community resources will permit.

The last area I will touch upon in the gap problem is that of evaluation of student progress. We have excellent tools of evaluation. There are the classification devices, the general achievement tests, the sports skills tests, knowledge tests and the combining of these forms of evaluation into a grading plan which is a measure of student ability and progress. But we still find "S" and "U" or "P" and "F" grading plans. In too many other schools we find grades based on attendance, behavior (e.g. no trouble to the instructor) costume and showers. We must get more general use of the proper tools of evaluation so that the appraisal of pupil progress is in terms of the basic objectives of the program. Is it an over-simplification to suggest that all we need to do is to use the tools of evaluation presently available?

III. The Identification of Physical Education With Sports.

The second problem I have chosen is the need to relate physical education in the minds of the American people with the sports movement for all ages.

There is no question of the acceptance of sports by the American people. This interest is manifest in many ways - reading, discussing, watching at home or in the arena and stadium, and participating. The strong following enjoyed by high school and college sports, the various baseball programs for youth, and professional sports, means that our people have accepted sport as one of the elements of the culture. The interest in recreational sports is just as strong. All one needs to do to find support for this statement is to glance at the participation figures in such activities as bowling, golf, tennis, hunting, fishing, boating, skating and cycling.

Modern physical education in high school and college is primarily the teaching of sports at the basic instruction level. Yet the American people seem unable to make the connection between the competitive and recreational sports movement for all ages and the teaching of physical education in our schools and colleges.

Here again is a problem of communication. The question is how to get the people to see the connection between sports and physical education so that the appreciation and support given to sports may be gained for physical education.

In a large number of schools and at some state administrative levels, physical education and competitive sports are not even considered as being related. Many administrators of interscholastic and intercollegiate sports programs view their activities as separate and distinct from physical education. This is particularly true for secondary schools where there are separate administrative units at the state level for interscholastic sports and physical education.

There are some physical educators who feel that the only way the basic instructional program will receive proper emphasis is to bring about a complete separation from competitive sports. While there may be some merit to the idea, I am not quite willing to support such a proposal until we have worked as hard at teaching physical education as we have at coaching competitive sports teams.

I suggest that the best way to get stronger support for physical education is to identify it more closely in the minds of the American people with sports. The means for accomplishing this are available and merely need extensive exploitation.

IV. Relationship of Fitness To Health, Physical Education and Recreation.

The third problem is the need for a better understanding of the relationship of fitness to health, physical education and recreation, achieving reasonable uniformity regarding this understanding, and working cooperatively toward generally accepted fitness goals.

With some help from the top level in government and medical authorities, we have overcome much of our reluctance to have physical education related too closely to fitness.

During the past several years, there has been pulled together considerable evidence in scientific literature, showing the relationship of fitness to vigorous activity and more effective personal living. The translation of personal fitness to national strength has been noted and accepted. The place of health, physical education and recreation in the improvement of fitness levels of youth and adults is well established. We have made a good beginning by preparing and disseminating a statement describing present fitness needs.

There is still much to do. We need to get greater agreement in our profession on how much emphasis we will give fitness in the total physical education program. We need more research information on how fitness is best achieved and maintained by the non-athlete through the resources of the school and college physical education programs and through the programs of the voluntary youth serving agencies. We know what it takes to develop fitness for football, basketball, swimming, wrestling and track. How do we solve the motivation problem in the non-athlete? The time problem?

A way must be found to help community leaders who want to develop reasonable and safe programs for improving the fitness of youth. Among ourselves we need to agree on how much difference we can accept in the various fitness test batteries now proposed or in use. We must accept what is reasonable in the absence of the perfect test instrument. How strong should the guidance be at the national level? On the state level should there be cooperative or independent fitness programs? How can we gear the great potential of the official and non-official youth serving agencies into reasonably unified and cooperative efforts toward the goal of improving fitness levels in this nation? How can we upgrade the quality and intensity of our school and college programs of physical education so that reasonable levels of fitness result? And knowing that fitness is fleeting and transitory, how can we impress our youth with the need for living the kind of lives that cause fitness to be maintained.

There are the questions we must answer before we can conduct programs which will really have an impact on the fitness of the youth and adults of this country.

V. The Role of Sport In Society.

Very little has been done in the way of exploratory investigation of sport as one of the elements of the culture. Professional workers in physical education and athletics have spent most of their time working for the development of sports programs and the solution of problems related to them.

Although sports have grown to occupy a significant place in our society, for some strange reason students of society and social life have dealt lightly with sport in their investigations. At the same time, those who teach and guide sport activities have omitted the relevance of history, sociology and social psychology.

Up to now the need for social research in sports has been voiced most frequently by social scientists. Present writings in our field are limited to one book and a few articles. On the other hand, students of the American social scene like David Riesman, Ruel Denny, John Allen Krout, and Gregory Stone have staked out rich fields for research in sport. In 1929 the Carnegie Foundation For the Advancement for Teaching published its famous Bulletin 23 on "American College Athletics". Sports Illustrated, The Saturday Evening Post, The Atlantic Monthly and other leading periodicals frequently publish articles which are penetrating analyses of current problems in sport.

There are rich resources for investigation in sport all around us but to date we have concentrated on the psychological problems of the sport participant rather than on the social significance of sport.

The need for social research in sport is great. We have many questions but few answers; many problems but not many solutions. We seek to solve our sports problems on a day to day basis, without any real understanding of the social meanings involved. For example, why are the consistently largest crowds in the United States sports crowds? Why are so many intelligent citizens more concerned about the prospects of the high school football or basketball teams than the quality of the English, science or mathematics programs? Why are sports teams the rallying point for student bodies, alumni, communities, regional, and even national groups?

Truly social research in sports could tell us more about the significance of sports in American society; the place of sports on the scale of values in American culture; the forces which motivate human behavior in sports situations: the role of the school in the sports life of America; sports and racial relationships; the concept of play as an element of our culture; the conflicts in values (ethics and morality) noted in our sports situations.

Riesman[2] suggests, ''Perhaps it is time now for the analysts and for other social scientists, to pay more attention to play'' . . .

Stone[3], in discussing ''Some Meanings of American Sport,'' draws a number of interesting conclusions. One of interest to us here is ''. . . the sport audience on a mass scale has only recently emerged on the American Scene, signalling fundamental changes in the larger social organization.''

It seems important that scientific study of sport be engaged in to determine more fully the extent to which sports have influence upon and in turn are influenced by such other elements of the culture as religion, economics, social structure, politics, military, education and technological developments. It also seems important to determine how sports may be used to contribute to human welfare in our society in general, and as part of the educational process.

VI. Conclusion.

In this paper, I have tried to deal with situations which we face in our profession today. Some situations are problems but they may also be opportunities. A problem solved, may in retrospect, be regarded as opportunity capitalized upon.

It is my belief that in the next decade we must achieve higher professional levels of effectiveness and status or face the possibility of seeing the present three level physical education program consisting of interscholastic and intercollegiate sports, intramural or recreational sports, and the service curriculum, become a two level program of competitive school sports and recreational sports.

As we look ahead, an encouraging factor is that we have the knowledge and we have the tools. What we need most is to close the gap between what we know about physical education and what we do about it, right on down the line from philosophy and principles to evaluation. And a major part of the doing is better communication with educational administrators, lay leaders and parents.

The problem and opportunities must be comprehended first by our professional personnel; the local teacher, the teacher educator, and the many associations from local to national. Individual and group action must be geared to solving the problems and reaching the desired goals. Only by understanding the problems and then putting forth individually and collectively will we provide the educational services needed by community, state and nation. And having rendered this service, a by-product will be the professional status which so far has eluded us.

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[2] David Riesman, ''The Themes of Work and Play,'' Individualism Reconsidered, Glencoe, Illinois, The Free Press, 1954, p. 333.

[3] Gregory Stone, ''Some Meanings of American Sport,'' 60th Annual Proceedings, College Physical Education Association, 1957, p. 26.

THE PYRAMID OF UNIVERSITY LIFE

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The keynote address before the annual meeting of the College Physical Education Conference of the United States.

The keyword in the title of our address, to open the annual meeting of the leaders of physical education, need alarm no one. The pyramid, it is true, does stimulate so many to mystify, to engage in odd generalities, or to indulge their own preconceptions with or without benefit of the Niles wonder of the world. Here, however, the pyramid is designed to offer a point of reference for centralizing deliberations lest minds go too far afield, if not to follow the pattern so manifest in present day group thinking — a way marked by hysteria and monomania. The pyramid has values for guiding so thoughtful a group as this one, determined to influence our generation rather than be moved by its waywardness.

The pyramid endured through the centuries! Here is a creation of what might be called timeless values: not forever, perhaps, but for as long a time as one can hope to grasp. It is better for anyone to concentrate on those seemingly eternal values than to endeavor along the line of the very evident or transitory trivia. Maybe all is in the flux! But some things move faster than others. Perhaps that which effects these changes does not change. Is this changing world moving by laws that do not change? See beyond change! See big! See the enduring, the enduring perhaps in the pyramidal sense: the enduring, not the trivia. Augment sight with insight.

The pyramids are properly constructed. They are broadly based. Notice that they do not rest upon their apex! One who has lived in Los Angeles for over a third of a century naturally is astounded by such engineering skill. Here the pyramids of life are on their apex. The demand for such pointed foundations is spreading in spite of the logic of time and of materials. Is there a crisis? Well, all you have to do is cry "panacea"! A pat answer for an age-old issue! The idea of patent medicine lies behind the political, religious, military and even educational issues! Monoism here is at its worst. But Los Angeles has no monopoly on over simplification, inversion and evangelical promotion.

A sputnik circles the stratosphere! What shall we do? Set the pyramid of defense on aiming at the moon! There is no more need of foot soldiers. Dismiss the navy. Concentrate on the intercontinental missile even if it bankrupts the country. Away with progressive education. The nation only needs engineers. Verily if one is loaded one is apt to explode when the heat is on. Any marked event may touch off such a powder keg. We are providing a field day for monomaniacal effusion.

Amid the din and roar of the varied patent medicine vendors, one hears the overtones of commentators. The one idea needs to be given life. Problems do not face us any longer. We must be kept in the atmosphere of crisis. Life is perpetual crisis and panic. Action, without benefit of thought, becomes the way of life. One must hasten to do something! Saint Vitus becomes the patron saint of modernity: perpetual action; one disease, one cure.

The emphasis upon science is long overdue. Engineering is a worthy effort in any man's world. The means of defense and of offense must constantly be refined. Progress is a good battlecry if one knows what it means. But there are other matters and other approaches to challenge the ingenuity of good minds, however worthy they may be. No pyramid will last long on its apex. And even the walls of Jericho could not withstand the noisy trumpets of the day and night.

Charles Darwin was once asked to lecture at Cambridge. The staff canceled the engagement on the grounds that science was not a suitable subject for a university. The humanities were then enjoying a tight monopoly. Now science threatens the very existence of the humanities. Thus it goes! The battle cry is ever, ''either - or'': the pyramid mutely reminds one of the ''not only but also'' inclusiveness. Science or religion? Science or the humanities? Mind or body? Latin or sports? ''And'' rather than ''or'' offers a better base for thought and action. Keep your eye on the pyramid. Listen to Plato. He was pyramidal. ''Nothing human shall be foreign to my interests.''

There is too much solo effort in modern life. The fiddler thinks he is the whole orchestra. At best we are hoping for a captivating melody. Harmony? Symphony? One out of many? Integration? Set up a counter barrage? No one here wants physical education to dominate the American scene. The consensus is merely for a proper place in the sun — not only for what we affectionately cally ''phys. ed.'' but for all that is worthy of a total personality facing a total world. Live and let live. The pyramid of university life must be set on a broad base. The apex of unity and of idealism must be kept on high. The refreshing rain falls upon the godly and the ungodly while men still delight in divination.

There is a third value in pyramids which can be of directive service to all of us. These structures are not only enormous but they are also remarkable in every one of the many details entering into their composition. Their coordination and totalizing effort are made possible because of this perfectionism found in every detail. A group such as this can well devote its thinking to refining the processes that have brought it so far and so well along the line, to insure a better future. Physical education is here to stay. In spite of odd reactions to it here and there, sports, athletics, exercises, physical welfare will play distinctive parts in the American scene. But we must see to it that they play increasingly better what it is their right to do in the first place.

There are many reasons for thinking that physical education has a brighter future than a past. The body is no longer despised. One can at least say ''sex'' without first looking around lest spies report the bold-ness to the authorities. Further, the increased wealth of America will allow even for luxuries. Automation may force all of us to wonder what we shall do when we have nothing to do. If we produce four hundred billion dollars of wealth in 1958, we will have one hundred billion dollars for leisure. This overview of physical education, therefore, in all its ramifications never was brighter. The prosperity of these departments rests upon forces as fundamental as gravity. One cannot level a pyramid with a paper wad. You may be annoyed occasionally. You may be blocked at times. But your destiny is as certain as it is bright. Like the pyramids of old, physical education may be the best P.W.A. project ever devised. Cheerio!

A group as well founded, as secure and as wisely directed as this might keep in a gay mood because of its pyramidal persistance. The pyramid stands through the centuries. Wind and rain and sand and marauding invaders have come and gone. Empires rose and fell. Looters profaned the sanctuaries. But there they stand as witnesses to the good, the beautiful and the true. The director of physical education with this vision need not stop to pick up the bricks hurled at him. He keeps going right ahead. All this may appear quite trite to some. But it needs to be said as long as some grow weary, are sidetracked, lose faith or even drop out of line because of whispering campaigns or over opposition. A convention such as this is for the renewal of faith in the fellowship of the day and in the pooling of experiences and of hopes. There is a warmth developed here that is needed for continued success in the days that lie ahead. Who is really as secure as you?

In planning for the future, near and remote, it is well to remember that performance is the best argument for a theory and that the best defense is a continued offense. The enduring, properly based, coordinated, totalizing pyramid incited subsequent pharoahs to build better ones. Within the sound framework of this engineering feat, definite progress is noted. It is ever so. "Greater works will ye do." The student surpasses his instructor! Such wholesome advance is to be expected. It is to be planned and provided. I can see some advances in the newer models. Let me share some of them with you, regardless of the hazards involved.

There are always great hazards in teaching. The progress road is lined with a succession of crosses from which dangle the bodies of those who advocated life beyond the three mile limit. The continentalists and three milers keep reminding the pioneer that they believe in progress — but! However, they soon run out of patience. History is replete with what follows. There is a world of difference between those who say "I believe in progress, but" and those who say "I believe in progress, therefore." It is the great enigma of history that the former add to the burdens of the road pursued by the latter ones. Does an auto on an uphill grind need a brake? The stay-putters always justify their position by adding burdens to the already overburdened to insure stability. The controllers always are a threat to the controlled. Forget your buts; keep shouting therefore. There are hazards along the "therefore" road, but there is no real fun along any other highway.

A pattern was set on the West Coast to guide and direct football. But new days demanded new ways. Dollars shrank in value. Life increased all along the line. The once adequate became inadequate. To meet the needs of the day and to satisfy the immovable ones, many of whom were just plain hypocrites, lines were established under the table. No cheating! No one was robbed! There were no give-aways! Only a bonus to keep up the purchasing value of the dollar! What followed is known on all sides. An incident calling for a few quiet effective measures ended in the destruction of the Pacific Coast Conference with reverberations of ill will likely for a decade or two. For sheer bungling it would be difficult to duplicate this performance. Only what we might learn from this fiasco will ever justify the experience. Real crises are as nothing compared to those we create, but both types can be made to energize our thinking.

We can learn that petty incidences need not get out of hand. We can learn that men who are innocent of athletics should not be placed in authority at their strategic areas. We can learn that everything in America is on a grand scale and that college sports are no exception. We can learn to think things and not words, such as amateur and professional. We must learn that jealousy, envy, and fear should have no place in the valleys of decision. Power corrupts and absolute power corrupts absolutely! No judge should be at the same time a prosecutor and a likely defendant. A game involving millions in dollars and fans should not be miserly in dealing with those who make the game possible. These and many other lessons can and should be learned, even though they be accompanied by wailing and tears. Knowledge plus sorrow equals wisdom.

The whole problem of football and kindred enterprises need to be reexamined and answers formulated to meet the demands of today. Hysteria needs to be dissipated. A little humor might be given an opportunity to ease the tensions even though it takes the form of one president's essay to his alumni on "A man's word should be as good as his bond" (bold and hot, eh what!); or another president's wordy determination to abolish football. "It is not the function of a university to entertain the populace on Saturday afternoon!" Verily, comedy relief no longer comes from the king's fool on the stool; it comes from the king himself on the throne. Whatever the source, humor is the need of the hour. It might save the day devoted to erudite stupidity.

Football will not fade away. It will continue in capital letters. Coliseums will get more numerous, larger and more expensive. A profession now in the making will develop. Many of our good sportsmen will vie with doctors, lawyers, teachers and engineers both along vocational and avocational lines. We will have to see big and act bigger than present-day usurpers of the area have demonstrated by word or deed. Life faces us with a peculiar choice — adjust or bust. Only yesterday at the Rose Bowl, Chief Justice Warren commended the affair for its civic values.

You must not be unduly exercised by the odd reactions of laymen, however powerful they may be, in your professional field. Let me repeat, much of this hysteria is due to the spirit of the times. The sputnik is still buzzing more in their heads than in the atmosphere. Not long ago troops were called to a school system, where a sharp dean could have operated more effectively and with less furor. Entire cities get panicky over the mere liklihood of an H-bomb. If a space traveller today were to view our planet, he might think it an insane hospital run by inmates. Bernard Shaw may have been a better inter-planet student than a wit or playwright when he suggested that the planets were not only inhabited, but also exporters of their mentally unfit. Where did all our nuts come from? Our planet could not have produced so many incurables. This assemblage could gain impressive distinction and America would be indebted to you if you could list your problems, follow fact and argument in attacking them without fear or favor, and not once "blow the works" after the fashion of the day.

You could make the library and the conference table real competitors of the band wagon, the newspaper headline and the breezy radio commentator. You could labor to make merit bring you more friends than public relation experts and ballyhoo. You could discount the usual convention rules and methods of operation in favor of creative intelligence. Swing freely!

There is much work still to be done by physed men and women. The other day I visited the Veterans Hospital in San Fernando. The doctors and nurses are doing an excellent job. But what should and can be done for those who for years have been confined by tuberculosis? Trained leisure experts are needed. Where they have been given an opportunity they have justified the investment made in them. However, more are needed. Something akin to professional training is required. They are being recruited from the leaders in our playgrounds. They raise issues that we here cannot long ignore or even slight with casual treatment. The responsibility for action comes with the vision of their needs and a deep feeling toward sacrificial patriots.

The whole issue of veteran aid in all the specialized hospitals of the land is before you. Think of one who for five years worked his way through high school while lying on his back. Note those basketballers in wheelchairs! Talk to the victims of a thousand battlefields. Many approaches have been attempted in their behalf, but the whole issue needs reexamination. The physed man has an opportunity here. He is not horning in; his profession requires his services in this whole field of long convalescence. He must put the oil where the squeaks are and not throw it all over the machine. Nowhere are generalizations more out of order than in this field of rehabilitation and care. Individual differences become decisive matters. The expert alone can meet them. One hundred patients now assigned to one such an expert is just too many.

While you are resting, do more than glance at our schools. Note the school, college or university where you are located. Who is watching the physical welfare of the students? A student should be healthier in

June than he was in September, if the school system knows the sounder meaning of life and of education. What is playing havoc with their health? Are European children better off physically than the Americans? Expert supervision is required to conserve and to promote bodily vigor. The gymnasia, swimming pools, cafeterias, exercises, sports, athletics, etc., are not enough. Preventative measures must be studied and applied. Good lighting, heating, ventilating and the like need to be examined and insured. The homes need to be studied and guided to make them more effective in health determinants. If some emphasize mental power, then others must be equally insistant upon physical vigor. The two are not as far apart as some assume. Together they constitute America's choicest natural resource and any weakening of their potency is subversion and sabotage of our chief means of survival.

In one university there is an attempt being made to keep the faculty vigorous. The swimming pool was offered to them at stated times. Golf and tennis classes are opened for their especial benefit. Recreation facilities are extended to men in the gymnasium. All this is to the good. A sickly teacher should not be allowed in any classroom. Such a presence is enervating. Preventoria should be provided for those who are flirting with breakdowns and collapses. Save the faculty! Teaching is hard work. It requires a robust health that could be conserved and enhanced by experts trained in physical reeducation. Save these wise men, if not for themselves and family, at least for the student body.

Physical welfare related to faculty and students, is often a matter of wise supervision. Enervating influences can be seen and eliminated. The boom in campus building affords such experts as you an opportunity to keep the factors of health before architects and administrators. There is a vast opportunity here for your leadership. Where there is no vision, groups perish. Leaders must keep ahead of issues.

Leaders so dedicated must keep their eyes upon legislatures, city and county councils and even upon the Congress. Politicians must be kept alert to these fundamental considerations. Here as elsewhere, those who hesitate are bossed — by the less hesitant if not also the less informed. Why should the blind lead the blind? The physed expert must be an active politician. Who in a dynamic democracy can afford to keep out of politics?

All specialized groups within the teaching profession must concern themselves with the teacher shortages that are more apparent than real. A sufficient number of persons are available. But the salary schedules, the arbitrary controls and the unjustified training and certification of candidates have led at least a million prospects to seek more favored areas of occupation. The shortage we lament is being increased. Training, recruitment, freedom and salaries must be drastically revised if we want an adequate teaching force.

School masters tend to become introverts. They find refuge in those Ivory Towers where they can indulge their minds in vagaries and abstractions. Some universities today are little more than modern versions of medieval monasteries, with a different but often as equally a non-marketable line of mental goods. It is well to have a place by the side of the road to reflect upon destiny, ultimates and efficiency. In addition to an ultimate weapon of war, there may be ultimate means of transportation, diet, clothing and housing. But men of this sort are apt to tarry too long in protected areas. They tend to lose their persepctive and to narrow their field of proposed operation. They are apt to ignore too much of what might be called human nature, only to be dismayed when they find in one way or another that it is in the neglected areas of man where arises so much mischief. It is the suppressions which lead to revolution. The complex is that which was held too long in leash. These rebounds make real progress too spotty for comfort.

Theory must be put to the test. Rationalisms are often dissolved in the presence of pressing facts. Logic either bends or breaks before the impacts of reality. Theory and practice are alternating currents in a normal mind. The school and society should be one in facilitating them. Nowhere is isolation more costly than in the divorce so many associate between these two vital groups. School masters need not sneer at those in the market place. Men about town or in the offices and shops need not discount eggheads. The former can save the latter from the clouds; the latter can save the former from the grooves. What is the difference between a groove and a grave. The groove is simply a grave with the ends kicked out. Here again the inclusionist is more likely to find timeless values in alternating complementary forces than in devoting his time and energies to either one of them. It is in the singular devotions that groovists and eggheads merit the terms of reproach coming from every direction.

While we are considering alternating currents, let us not forget work and play. All work and no play makes Jack, but also bad habits which leave no time or energy for spending it. All play and no work makes a jerk, for whom the rest must become carriers of water and hewers of wood. Moses had the right idea of balance, culled no doubt from life and the pyramids, as well as thru Sinai, that one day in seven for recreation was essential to well-being - mind, body and soul. He commanded the farmer not to cut the corners for the benefit of the poor - a kind sportsman-like gesture in the game of existence. The truth here is as sound as it is apt to be forgotten in the drive toward monomania. Moses touched upon almost every aspect of human existence though theologians are apt to restrict him to the level of their own fanaticism. Disciples and commentators are apt to reduce the objects of their study to their own self-imposed limitations. Kindly remember that the heroes of history are not as bad as they are made to appear by their friends. Moses was a manysided person. He was no despiser of the body.

St. Paul has been roughly treated by many superficial observers. But he was born in no mean city (Tarsus). He was city bred and through travel and linguistic mastery experienced in cities and their backgrounds. He knew well most of the metropolitan centers of his day. As he came to the end of his amazing career, perfecting a world wide chain store like system, he manifested the breadth, depth and spirit of a good sport: "I fought a good fight. I have finished the course. I have kept the faith. Henceforth there is laid up for me, and not only for me but for all who have kept the faith, a crown of righteousness." And so this prizefighting, field day, Olympic fan passed into eternity, not unmindful of the significance of honors, prizes and fair play which so many today are bringing into question.

One need not look far into the record to note Paul's interest in physical welfare, subsidies for athletics, below if not above the table, set by conference hypocrites, whose victories come through smoke-filled rooms rather than the field of combat. It was he who reminded us that our bodies are the temples of the living God — a lofty conception of the body and a friendly view of its creator. Verily there is a fine spirit behind these prophets even as behind the pyramids of antiquity; broad-based and pointing to the stars. Tall men, sun crowned but with both feet planted squarely on terra firma.

"Man does not live by bread alone!" Bread is essential, a little butter adds something of value to it. A bit of fellowship through the meal adds something else. And so it goes from basic hunger to those finer drives common to all normal persons. Man seeks abundance — a full expression of all his powers. Society should be made to fit these expanding personalities. Man's adaptation to his societies is only a partial principle. Sports and athletics are vital parts of this enlarging universe within and outside of the individual. Reformers must exert themselves as long as the formers and deformers keep cutting down people to fit their narrow views of life and of education. The restrictionists must be challenged all along life's extended front. Continue in the spirit of the seventh inning stretch in the great game of life.

Seneca's "sound mind in a sound body" is as ancient as the pyramids and as substantial. Book learning, memory work and creative thinking are facilitated by health. Academic departments should demand more of you than you offer. They should feel that you could be their best friends in need or in plenty. Mnemonic devices are poor substitutes for good blood, wholesome food, fresh air, muscular tone. Is life worthwhile? That depends upon the liver! However viewed, James used aright the liver in that essay.

There is nothing in a lesson or a book that justifies the loss of one's health. We must teach life — not a school. (Seneca again). We must let them grow — not be innocculated. Let them come into the fullness of their physical inheritance. Without paying tribute to Russia or indulging in any kind of panic, let us say that no matter what transpires now or in the future, physical health will be among the first important matters dealing with the survival of America.

Here we approach timeless values if there be any. Regardless of the societal type, form of government or economic life, sound bodies will have priority. On this level your patriotism can shine and become fertile. Incidentally, those qualities you stress and the skills of the gym or pool, also partake of this eternal durability — fair play, good sportsmanship, honesty and the like. Dr. James once wrote in his great essay, "The Moral Equivalents of War," that the road to peace is by way of those activities which must be as intense, as meaningful or interesting and as exciting as war itself.

A league of nations may put up road blocks to war, but only you and your kind can fill in the gap made by them. Man is too dynamic to rest long before any road block; he will either remove, go around or use it as a stepping stone to find a higher vantage point. Russia and America should establish a football league! Not necessarily along the Ivy League pattern! The Pacific Coast Conference can well be bypassed. A big league of amateur-professionals pulling their stuff in a coliseum filled with thousand of yelling zealots could rechannel the war impulses to something, if not altogether acceptable, at least less abhorrent than war itself. In a sense this is a cold war much more desired and desirable than what we see transpiring in a world being led by adolescents parading as great statesmen.

The alternative to coexistence is now complete destruction. The alternative to passivity is a life not altogether stripped of its vital competitiveness. We must have peace! But it must be a peace admissive of the total man. If his warlike qualities cannot be suppressed, they must be rechanneled. High-geared sports which meet this eternal problem of peace and war would be cheap at any price. What we ask under budgetary pressure is ridiculously small for the services rendered and the good expected in the long run. This is a good fight; it is a world-wide fight to the finish. You and yours can win the day for a better, if not an enduring world, of peace.

One can almost hear objection to all this, arising from many respected but not necessarily respectable sources. However, we are not unduly superlative or even extreme. Even if we were a bit extravagant in our hopes, we may still serve a good purpose. One must aim high. High purposes energize even the slothful. One must believe in what one is doing. One must believe in something sufficiently significant to challenge his capabilities. Here is something timely, significant, and competitive — we will underwrite a peace program that might make obsolete the United Nations as it is now functioning. Here is a top level conference — top level in occupation as well as personal. Here we could make plans to raise corn instead of hell; to battle and to "politic" for peace as others do for war. This is a hard job, but I think it can be done. It must be done by someone.

Your sovereignty is fairly well established. Your purposes are rather clearly stated. Your accomplishements speak well for future success. You must still make secure your gains. Colonialism is waning the world over; it is still an operative principle in our universities. The academic hierarchy is ever over-extending itself. The abstractionists are intent upon building an empire for their own advantage. Autonomy, sovereignty based upon competence, self-determination, are foreign to the minds of those bent upon the alternatives — to rule or to ruin. The liberal arts colleges are making a last desperate stand. Their deans, not unlike Sir Winston, feel they are not appointed to see to the dissolution of the empire — an empire that is falling apart in spite of ballyhoo and subsidies. We do not fight liberal arts; we desire to put them in their place.

The modern university is as broad as life. No one element must either rule others or be itself eliminated. There is a place for all human interests. But the spirit of democracy must prevail: inclusive of all, expansive within each, mutually beneficial without imperialism. Boundaries must be established and maintained. The class system with its snobbery must give way to mutual respect and aid. Gradations can be made within but never between departments. For instance, a dean of physical education must never be considered somewhere between the dean of liberal arts and the head custodian. There is as much to physical education as there is to Latin, Greek, philosophy or physics. Say with Gideon, "I will not rule over you! I will not rule or be ruled."

We hear much today about raising standards. One college delights in raising standards — their standards for others to follow. However, each department must raise its own standards of excellence to measure its own output. All need to keep revising their standards to prevent standardization. We may need standards, but we do not need fixations which usurp their place whenever afforded the opportunity. Monopoly is truly a bad word. The university should not give the appearance of anything that makes the word necessary. Physical education has much to learn from recent as well as ancient history of Egypt, while the liberal arts crowd need to revise not only their foreign policy but their internal affairs. In many universities they are liberal in name only. So many of their fine arts have gone the way of technical subjects. For a larger acquaintanceship they have neglected their own. They have creeted what they lament.

The real university is liberal, tolerant, inclusive and democratic. It is a loosely federated association of interests as broad as life. The departments are constantly in the process of reorganizing their material and method. This community of productive scholars thrives on freedom, intelligence, creativeness and tolerance. Differences are encouraged with a hope of finding truth. Nowhere is dogma more out of place. Leadership is merely a device for emancipating followers. A wise and progressive leadership endeavors gradually to make itself useless. It is better to haltingly follow this gleam than to make a great show of success in unworthy fields of endeavor.

In such a hallowed place there is room for those devoted to physical welfare. While establishing their own prerogatives, they must be respectful of the areas about them. Since budgets are not limitless, they must learn the art of "give and take." There will never be enough for each and every interest. There should never be a sufficiency anywhere at the expense of others. But when we see in toto, physical education should have nothing to fear in budgetary matters.

The antiquity of the pyramids is paralleled by the backgrounds of the physical education movement. The superficial may mention normal schools, Indianapolis and Turngemeinde. But these worthy elements are mere outgrowths of developments reaching back over 2400 years. Our games, sports, setting up exercises, dumb bells, Indian clubs, rope, horizontal and parallel bars, rings and corrective programs are modern blooms on a plant rooted in ancient Greece. This variegated phenomena is not unlike those annuals, which dry up at times only later to bring forth more colorful blooms.

Plato argued well that a good citizen needed to be a lawyer and a prize fighter to get on in any civilized society. He established the longest lived institution of higher learning — the Academy. The Academy was centered in a gymnasium; a public place for the health and development of the body. It was given to competitive exercises between naked men. The relative cost of such and similar places would shock a modern taxpayer. The programs were so expensive. Supervisors abounded. Corrective exercises for the sick were prescribed. Galen recommended them and Hippocrates approved their work. It was only later that languages, rhetoric and philosophy were added to the curriculum, and then they were kept at the peripheral areas. Physical welfare was central. It is nothing short of tragic that these departments which were originally confined to the porches where they belonged, sneaked in and took over. Like all intruders with more power than worth or background, they began to push around the good sports that let them in. Physical education should regain its proper place in the economy of a college or university. With tradition on their side and a high sense of victory, the leader here should rush into academic councils with the battle cries of platonic realism and the best in modern psychology. However poorly done it is better to attack real issues than to be satisfied with excellent answers to questions no healthy mind would raise. Although no great crises are before us, this is no time for trifling nonsense.

These ancients established a set pattern for all time. Physical well being adds life to our years if not years to our life. The details need not concern us too much. This national association, for instance, from 1890 to 1910 centered its discussions on the relative values of the Swedish and German methods! Few groups are free from such arguments which for the moment may seem to be so meaningful. The details will be matters for research and reflection over the years. But let us not become so involved in them that they put into jeopardy the whole movement. Keep behind the eight ball. Beware of a diversionary tactic so often devised by friends as well as foes of the movement.

A movement through twenty-four centuries naturally makes many unnecessary detours. Such seeming failures should be exploited for making easier the main highway. Costs will always be kept in mind by certain groups which are penny wise and dollar foolish. They rationalize their parsimony. They speak of essentials and frills, amateur and professional, public and private, as though they knew what they were talking about. Remember the momentum of the centuries! The eyes of Plato are upon you. He set the roots, cultivate and enjoy the fruites of his labor and yours. Keep faith with your pedagogical ancestors, your present day charges in the form of dynamic Americans (the world's noblest breed) and the bright future regardless of attempts to becloud it with fancied fears of all kinds of Sputniks.

The present emphasis on things Russia is throwing many of us out of focus. The hundred percenter who just recently condemned Russia in every particular is now using it as a model. If they pull a fast one we must also think up one! If they go all out for engineering, we may as well close all our schools to give engineering an unprecedented advantage! If we must follow Russia let us be sure she is worthy of imitation; if we must hate her let it be for the right reason. And let us not wait for the latest radio pronouncements before we make important decisions. It is always possible that fears are incited merely to warrant another spending spree or bring into being something that rightly was discarded years ago.

Russia has a permanent staff of 2300 translators, abstractors and editors in their Central Scientific Intelligence Agency. They are aided by 20,000 part-time employees, who together turn out 400,000 outlines of scientific articles culled from journals published in eighty countries. Fourteen-hundred of the eighteen-hundred scientific journals published in the U.S.A. are so covered. Spies are not needed nor are they employed in this field. They simply are doing an excellent job of collecting worthwhile material, not only for scientific use, but for the possible destruction of their benefactors. In the meantime, a thousand German scientists are now helping Russia, while a much smaller number of them are aiding us. It is beginning to look like a civil war among German scientists rather than a struggle between the free world and slave or Slavonic hordes.

In America we have an Office of Technical Services in the Department of Commerce. Thirty-five employees perform the function of a central clearing house on scientific publications. This meager effort should raise many questions for Congressmen and others to answer. We seem better at distributing than collecting. Evidently we are not as wealthy as many think we are; the rest are not as poor as they would have us believe. Our selective processes favored the importation of questionable refugees over high typed trained scientists. America's present and future are secure (may be), but her victories would be less costly if she used her head instead of her heart. Her glands, her a priori formulae, and her purse need attention. We have excellent authority for believing it is a sin to cast pearls before swine. Such analyses calls for thought; they do not call for the scrapping of our entire way of life. We still have many advantages. Russia is still wanting in many particulars. Keep alert!

Cults have a way of perpetuating themselves. Russia, for instance, was always aristocratic. It still is. The majority are outcasts. A small minority is favored. That minority may change with the years. But a minority, however determined, is still enjoying plenty at the expense of the majority. Their minorities win and maintain power through ruthless force. Democracy is evidently not for that sprawling empire as far as we can see.

The present emphasis upon engineering is in line with minority action. It is a corollary to materialism. It is a pyramid on the apex of production. The majority of persons and the majority of human elements within the person are ignored or at least brushed aside for the moment. What physical education major could not make out a better case for his subject than statistics and philosophy are now being employed to favor the Russian aims, principles and methods? Enter this battle of words. "You have a world to gain."

An enduring society must have mechanical intelligence to insure production. It must have social intelligence to insure adequate distribution of its products. It must have philosophical intelligence to guide the consumption of what is distributed. These types of intelligence must be integrated to become effective. The emphasis upon any one of them invites disaster. The practical application of any approach toward relating these intelligences is nothing for amateurs, bigots and fanatics. So far America is the great standout in such an integrated enterprise. We lead as long as more people would come to America than would leave it. Work with this spirit of self assurance if you would not be cast down by the defeatism that is being deliberately manufactured today.

When I started to teach 45 years ago the trek was to Germany. Germany had everything! But Germany declined and fell, through the very error now sweeping us to Russia. John Dewey always lamented this European trend in teacher groups. He wanted a grass root education, American and human. He sought to rescue the teacher from foreign ideologies and the child from adultism. Both of these emphases need to be made today. Grass roots! People!

Classical philosophers despise Dewey because he refused to discuss with them such items as bladeless knife that had no handle. He insisted upon employing his mind to solve problems rather than using it to form ideas via Aristotlean logic or convictions via Aquinas. He gave philosophical sanctions to the American way of life along the pioneer road.

The mention of Dewey incites many peculiar reactions. While his friends and foes grapple in deadly conflict, neither seem to have caught his major emphases. Progressives, now so called, and the three-r-ists are too intent upon their finely spun doctrines. The doctrinaire is always unduly contentious. He delights in missing the point. But Dewey saw beyond the details. He insisted upon two points of reference — the child and democracy as a grass root movement. The rest of his philosophy and life may be held in abeyance for a time at least. Consider the student — all of him. Consider his world — all of it. Consider our schools -- the best in the world.

We are in no real crisis. We are good; we shall get better. No one can long float on his oars. We will always have to trim our sails to suit the weather. Problems will ever be our portion. After the inspiration of the pyramids we will leave Egypt for foreign ports. After this conference each of you will return to your homeland to carry on something of a missionary enterprise. A word from Washington may help you. He knew life pyramids, physical education, assemblies of men and universities and colleges. Said he,

"Great people are not affected by each puff of wind that blows ill. Like great ships they sail serenely on, in a calm sea or a great tempest."

Sail on, if only for the sake of the adventure. Life, after all, is but a great sport and that is where you should shine. Keep in the mood of victory.

MORE EFFICIENT SCHEDULING AND MULTIPLE USE OF FACILITIES

Armond H. Seidler
University of New Mexico

The Physical Education profession, for many years, has complained that it was never given enough in the way of facilities to do the type of job it was expected to do. It is about time that we began to face the fact that in all too many cases some intelligent study would enable us to use our present facilities more effectively than we have been doing up to now. Physical education facilities are the most expensive in the school and generally are in use less time than most others. There are three courses which could be followed:

1. The first is to make efficient use of facilities through better scheduling of physical education classes and related activities.

2. The second is to allow maximum use of facilities by so designing these areas that a greater variety of activities can be carried on in the particular facility.

3. We could be more selective in the planning of which physical education activity courses or activities will be taught.

The problem of scheduling is one which, in most cases, has rarely been carried on with the purpose in mind of providing full use of the areas being used. Most physical education classes in the field, in the pool, or in the gymnasium are thirty minutes. This means, that out of any single sixty minute block of time on the clock, most physical education facilities lie dormant one half of this total time or thirty minutes out of each sixty minutes. It seems to me that one of the best techniques we could use today would be a very careful analysis of scheduling of students in their classes so that we could possibly arrange for a student to take a course on the gymnasium floor, in the pool or on the field in the thirty minute time interval, which at the present time, allows the facility to be unused.

To be specific, at the University of New Mexico classes start on the hour. A typical physical education class using our auxiliary gymnasium would report to the locker room about 9:00 o'clock, report on the gymnasium floor at 9:10 and then participate in a physical education activity class schedule on that floor from 9:10 until 9:40. At 9:40 this class is dismissed and is then given ten minutes to shower and dress which takes it to 9:50 after which the students are given ten minutes to travel to their next class. I am quite sure that there are a good number of students on the University of New Mexico campus who are not scheduled at the present time for either a 9:00 o'clock or a 10:00 o'clock class and I am suggesting that it might be wise for us, as the pressure of enrollment increases, to schedule a class on the same floor which would convene at 9:40 and which would dismiss at 10:10. At present, we teach classes which convene at ten minutes past the hour. They meet on the floor at 8:10, 9:10, 10:10, 11:10, 1:10, 2:10, and 3:10. With the new plan we would teach classes on the same facility at 8:40, 9:40, 10:40, 11:40, 1:40, 2:40, and 3:40. Obviously, if this scheduling procedure were carried out all day we would then be able to teach classes in each of our activity stations an additional eight hours, or eight classes, a day. Our new Johnson Gymnasium has eight indoor activity teaching stations. This means that we could then offer an additional 64 sections or classes of physical education in this building during the course of one week, using only Monday, Wednesday and Friday sequences. We have seven outdoor athletic fields. This means, using a Monday, Wednesday, Friday sequence, that we could have 56 additional classes on these outdoor fields. It seems clear to me that we are not going to get all the additional facilities that we would like to have and that we might turn at this time to a proposal like the one being suggested here to expand our facilities use.

Most universities, up to this time, have been quite reluctant to offer classes which meet on Saturday, but I think that we are going to have to face the fact in the next few years that if we are going to do the job and meet the needs caused by increased enrollment we are going to have to schedule classes on a Tuesday, Thursday, Saturday basis, as well as our present Monday, Wednesday and Friday plan.

One other suggestion, which might be appropriate, in connection with more efficient scheduling would be the use of a facilities chart. This would graphically indicate just exactly when and by what any particular facility was being used. This might serve as a constant means of schedule evaluation. It certainly has been a great aid to those of us in the profession who rely on this device.

Another technique which might be used in providing better use of facilities would be the technique of painting as many as possible different types of courts or game areas on our present facilities. I know that historically we have been very reluctant to mark up a handsome basketball floor with volleyball, badminton, paddle tennis and other type of court lines, but we must face the fact that it is becoming an ever increasing luxury to reserve a large play area, such as a basketball court, for the use of one group of boys, or one activity. My suggestion is that these additional court lines could be painted with a flat paint so the basketball players would have little or no difficulty in getting over the lines.

One of the most important areas in which we have been deficient as a profession, is in the planning of the particular type of activities which we have selected to make up our curriculum in physical education. As the enrollment pressure becomes greater it is clear that we are going to have to accommodate more boys per hour on a particular area or facility, and this implies that we are going to have to select sports activities and games to teach which will take care of more students. For example, on a regulation basketball court we can accommodate ten boys playing the game of basketball. On the same court we could put two regulation volleyball courts which would accommodate 24 boys. At the University of New Mexico we have a shortage of available athletic fields which are used by our physical education program, varsity football, intramurals, marching band. Consequently, we have discovered in recent years that we frequently have a crisis which involves one of these groups being squeezed off of a facility of this type. In an attempt to meet the obvious pressure for serving more students on an athletic field we have abandoned such games as touch football and flag football and have adopted the game of flicker ball, which is a sport quite comparable to the two previously mentioned, but which allows us to place 42 boys in six seven man teams on a single football field, instead of two teams of seven or nine boys in touch football or flag football. Consequently, in our intramural program instead of using a football field for two teams of touch or flag football players, we can now schedule three games of flicker ball on the same facility, and one of the principal reasons that this game has replaced the other two traditionally played football games is because of our concern for the need for making better use of facilities.

An additional suggestion in connection with this particular aspect of more efficient use of facilities is that some of the activities which in recent years have not been particularly popular in the mens physical education program can serve a large number of students in a rather small area and this is the sports of tumbling and combatives. On a relatively small matted area we can serve large classes in elementary or advanced tumbling and large classes in a sport like wrestling. I recommend that you consider the possibility of adding to the emphasis we now place upon these aspects of our physical education program to the end that we serve more students with these same available facilities.

This problem of more efficient scheduling and multiple use of facilities is one which has always been with us, but it has never been as serious a consideration as it will be in the coming years. The problem is with us now and time is of the essence.

VOLUNTARY PHYSICAL EDUCATION – A WAY OUT

Arthur J. Gallon
University of California, Santa Barbara College

Chairman Wakefield, Panel members, members of the College Physical Education Association, and Guests:

Our topic this morning, "Meeting Problems Created by Increased Enrollment," is a very real one in the eyes of school administrators and interested citizens throughout the entire nation. Recent population estimates indicate that the problems are really just beginning. The United States Bureau of Census in Washington, D.C., in a conservative estimate, indicated that the civilian population of this country in 1960 will be 174 million; by 1965 it will approximate 187 million.[1]

What will the effect of this population increase be on the number of school age children? The United States Office of Education estimates that the number of children enrolled in kindergarten through grade twelve during the school year of 1959-60 will approach 42.8 million.[1] A conservative estimate indicates there will be over 45 million school children in 1965. Perhaps, the most significant increase for us to note is at the high school level where it is estimated there will be a growth increase of 58 percent over the 1955-56 enrollment. The problems presented by this tremendous upsurge in students for the secondary schools, colleges, and universities hardly need amplification.

We should note, however, that educational leaders are being confronted with a multitude of issues besides the unprecedented growth in school population. Some of these issues are competition for the student's time, the dwindling value of the tax dollar, the disappearance of space for expansion, and the increased cost for construction of new facilities. Many of these leaders, faced with these issues, are taking a serious look at the curriculum and raising questions of their own. Among these is a question of grave concern to the physical education profession. This is – should the physical education program, at the college level, be maintained on a compulsory or voluntary basis. This gave rise to my topic for the day – "Voluntary Physical Education – A Way Out?"

I should like to emphasize the question mark after "A Way Out?" The reason being that I personally doubt that voluntary physical education offers the answers we as a profession seek to the problems caused by increased enrollment. If our aim is merely the reduction of student numbers and decreased need for facilities then the voluntary program would seem to be the answer. However, to accept such a philosophy would be to throw aside many of the basic ideals of our pioneer leaders. We as a group are partisan in our beliefs. This is very natural when one considers our training and the doctrines under which we ''grew up.'' I hardly think many of us could accept the mere reduction of students and need for facilities as a way out.

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[1] Bailey, Cleveland M., "The Problem of School Finance," Vital Speeches., 21 (October, 1955), 15 23-7.

Despite this, physical education as a profession has a responsibility to the public it serves to examine every possible phase of its program to see if improved methods can be employed. Insofar as the ''voluntary program'' is concerned, very little has been done. In fact, we as a profession could be accused of negligence in this respect.

A voluntary program at the collegiate level is the exception rather than the rule. A recent survey carried on among member institutions of the North Central Association of Colleges and Secondary Schools which covers nineteen (19) states, revealed that out of two-hundred-fifty-three (253) institutions polled, two-hundred-thirty-eight (238) or ninety-four percent (94%) require physical education for graduation.[2]

The University of California is unique among institutions of higher learning in many respects. Among these items is the fact that at one major branch, (University of California, Los Angeles), physical education is a requirement for graduation while at another, (University of California, Berkeley), it is conducted on a voluntary basis. Thus, U.C. offers a wonderful laboratory to study different aspects of the program. With this in mind, a study was undertaken to see if some of the factors which influence participation in physical education on a voluntary basis could be determined. Specifically, the study attempted to compare differences in individuals who elected the program against those who didn't in the following respects:

A. Status in college that might influence participation.
B. Student's interest in sports activities.
C. Physical education and sports activities background.
D. Opinions as to the value of physical education.
E. Rating of factors by those who did not elect physical education which might have influenced their decision.

The Study

Each semester all new male undergraduates are required to attend a one hour indoctrination lecture given by members of the Men's Physical Education staff. At this lecture, the students are informed as to the nature of physical education at U.C. and advantages offered. Each student is requested to fill out a ''sports activity background'' card. In the fall of 1956 two-thousand-seven-hundred-thirty-five (2,735) new undergraduate male students were enrolled at U.C. Out of this number three-hundred-twenty-eight (328) or only twelve percent (12%) registered in an activity class offered by the physical education department. Of those who did register two-hundred-twenty-eight (228) took the class for credit while the rest enrolled on a non-credit basis.

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[2] Greene, M. M. ''Physical Education as a College Graduation Requirement,'' Journal of Health, Physical Education, Recreation, 26 (December 1955), 25-6.

Questionnaires were mailed to two-hundred-fifty (250) new male students enrolled in physical education activity classes and two-hundred-fifty (250) new male students selected by organized random sampling who did not enroll. Some were returned because of faulty addresses thus reducing the total that could be answered and returned to two-hundred-forty-two (242) for enrolled students and two-hundred-forty-six (246) not enrolled. One-hundred-seventy-three (173) or seventy percent (70%) of the enrolled questionnaires were returned and one-hundred-sixty (160) or sixty-five percent (65%) of non-enrolled came back.

In addition to the questionnaires ten (10) students from each of enrolled and non-enrolled group were interviewed concerning the questionnaire and their opinions as to the value of physical education activity courses.

Results of the Study

Because of time limitations only some of the items covered will be presented.

A. Table I

Status of new male undergraduate students in U.C. that might influence election of a physical education activity class on a voluntary basis.

Item	Not enrolled in P.E. activity classes	Enrolled in P.E. activity classes
1. Lower division students . .	65%	77%
2. Registered in College of Letters and Science	64%	76%
3. Average academic load . . .	14.8 units	14.3 units
4. Member of a campus organization	44%	51%
5. Married	11%	7%
6. Commuted more than a mile each way	24%	28%
7. Average approximate time spent commuting	1.53 hours	1.35 hours
8. Employed	35%	36%
9. Average weekly time spent in employment.	18.5 hours	14.4 hours

The differences that exist between students who are not enrolled and enrolled in activity classes, as shown in Table I, are not statistically significant. Despite this there are some implications that can be drawn from items 1, 2, 3 and 4. These tend to show that lower division students in the college of Letters and Science with lighter academic loads and who are members of campus organizations are more likely to enroll in physical education activity classes. Marital status, commuting and employment are factors about the same for both groups.

B. Table II

A comparison between new male undergraduates at U.C. who enroll in physical education activity classes and those who do not in regards to interest in sports activities

Item	Not enrolled in P.E. activity classes	Enrolled in P.E. activity classes
*1. Consistently read sports page.	51%	67%
2. Enjoy activities as a spectator	90%	90%
*3. Plan to participate in intramurals.	37%	52%
4. Participate in sports away from campus	33%	31%
5. Average approximate time in participation in sports away from campus.	4.6 hours	4.79 hours
6. Is participation in College Physical Education classes a waste of time? .	.04%	.006%

*Statistically significant at the 1% level.

Greater interest in sports activities is indicated by those students who enroll in physical education activity classes as shown by items one (1) and three (3) in Table II. It is interesting to note that, out of three-hundred-thirty-three (333) returns from both groups, a very large percentage felt that there was value to be received in college physical education classes.

C. Table III

A comparison between new male undergraduates at U.C. who enroll in physical education activity classes and those who do not in regards to physical education and sports activities background.

Item	Not enrolled in P.E. activity classes	Enrolled in P.E. activity classes
	Answered affirmatively	Answered affirmatively
1. Did you have organized instruction in sports skills in elementary school?	67%	65%
*2. Did you use playground facilities after school during elementary school years?	70%	80%
3. Did you have organized instruction in sports skill in junior high?	59%	59%
4. Did your junior high have an interscholastic team? . .	52%	59%
*5. If so did you attempt to participate?	60%	73%
6. Were your junior high P.E. instructors interested in you as a student?	38%	47%
7. Did you have organized sports instruction in high school?	89%	87%
8. Were the coaches also P.E. instructors?.	96%	97%
9. Were the coaches interested in teaching all students?.	48%	56%
10. Did you participate on an interscholastic team?	63%	76%
*11. Did you earn an athletic award?	78%	84%
12. Did you enjoy P.E. in high school?	84%	88%
*13. Were the P.E. classes organized for participation for all?	89%	87%
14. Do you feel your P.E. classes in high school were of value to you?	87%	87%

*Statistically significant.

There is very little difference in the background of the enrolled and non-enrolled students insofar as organized instruction is concerned. (Items 1, 3, and 7). Items 2, 5, and 10 show that those who enrolled in activity classes were more active in sports. Despite the fact that over fifty percent (50%) of the individuals in both groups felt that their physical education instructors were not interested in them as students, a large majority enjoyed physical education classes and felt they were of value. (Items 12, 13, 14)

D. Table IV

A comparison of opinions between new male undergraduates at U.C. who enroll in physical education activity classes and those who do not in regards to the values of physical education activity classes.

Item	Not Enrolled in P.E. Activity classes	Enrolled in P.E. Activity classes
1. Had fun and relaxation from studying	91%	87%
2. Became a better performer in sports activities	85%	87%
3. Increase knowledge of sports	77%	87%
4. Made new friends	75%	82%
5. Improved physical fitness	75%	82%
6. Learned to be a good sport	54%	43%
*7. Overcame some of my awkwardness	45%	61%
8. Acquired skills that can be used in later life	45%	52%
*9 Improved personal appearance	25%	38%

*Statistically significant at 1% level.

One-hundred-forty (140) non-enrolled and one-hundred-forty-nine (149) enrolled students felt that physical education was of value to them. They were asked to check the items in Table IV that they felt benefitted themselves. Item 7 overcame awkwardness, and 9 improved personal appearance are statistically significant. More students (11%) who did not enroll felt they became better sports. The similarity in the rest of the items is very close.

Fear of low grades, education load, and class conflicts, (items 1, 3 and 4, Table V) were the most frequent reasons given for not enrolling in physical education activity classes. In the interviews with non-enrolled students factors such as embarrassment, awkwardness, lack of ability, and failure to see the need for such a class were the most common reasons given in item 8.

E.

Table V

A rating by new male undergraduates at U.C. by factors why they did not enroll in physical education activity classes

Item	Percentage of replies checked by non-enrolled students
1. Educational load too heavy.	60%
2. No interest in sports activities.	.06%
3. Fear of low grades.	11%
4. Class schedule conflict	16%
5. Class wanted was closed.	.03%
6. Advisor advised against it	.02%
7. I prefer intramurals to regular class instruction	.06%
8. Other reasons	37%

Summary.

1. The voluntary physical education program does reduce the number of students and need for expanded facilities. However, many students who need such activity do not take advantage of the opportunities offered to them.

2. Status in school and academic load appear to influence enrollment in physical education activity classes to some degree.

3. Marital status, commuting, and employment are not important factors in decisions to enroll or not enroll.

4. Interest in sports activities definitely influences enrollment.

5. Knowledge of the values to be obtained from physical education activity classes does not prompt students to enroll on a voluntary basis.

6. Those students who enroll in physical education classes have been more active in sports than those who do not.

7. In the opinion of the students who enrolled, they felt that physical education activity classes helped them overcome awkwardness and improve their physical appearance.

8. Educational load and fear of low grades are influential in decisions not to enroll in physical education classes on a voluntary basis.

9. Non-enrolled students indicate that embarrassment, awkwardness, lack of ability, and failure to see the need for such a class were factors that influenced their decision not to participate in physical education activity classes.

MEETING PROBLEMS CREATED BY INCREASED ENROLLMENTS THROUGH THE USE OF PROFICIENCY EXAMINATIONS

Ramon W. Kireilis
Texas Technological College

Since the Chairman of this Committee requested a report on the use of proficiency tests (motor ability, athletic ability, sports achievement and others) in meeting the problem of increased enrollments in our colleges and universities, it was imperative that a survey be made to determine just what is being done along these lines.

A questionnaire was sent to 150 colleges and universities who are members of the major conferences throughout the United States. Of the 150 questionnaires sent out, 123 or 82% were returned completed. The following information was completed from the 123 completed questionnaires.

1. Nine schools or 7.32% use proficiency tests in solving problems created by enrollments.

2. Three schools or 2.44% use published, standardized tests.

3. Six schools or 4.88% use tests which are miscellaneous in nature, i.e., published and unpublished.

4. Ways which tests are used in meeting problems created by enrollments are as follows:

   a. Six use them as a means of exempting high rating students from further physical education participation.

   b. Two schools use average rating as a means of allowing students to choose their activities.

   c. Three schools use low rating as a means to restrict students to certain activities.

Names of authors of published tests used and the school using each is as follows:

1. University of Chicago – The Harold M. Barrow Test. Published in the 57th Annual Proceedings of the C.P.E.A.

2. University of Illinois — Tests by Dr. S. C. Staley
   Published in the following books:
   - Staley, S. C., The Curriculum in Sports, Philadelphia and London, W. B. Sanders Company, 1935, 373 pp.
   - Staley, S. C., The Undergraduate Professional Curricula of the University of Illinois, School of Physical Education, Champaign, Stipes Publishing Company, 1951, 204 pp.
3. Wake Forest College — Barrow General Motor Ability Test
   Published by the Burgess Publishing Company, Minneapolis, Minnesota.

Schools using miscellaneous test items are as follows:

1. Brigham Young University — The items selected from standardized tests.
   - a. Obstacle race
   - b. Basketball throw
   - c. Standing broad jump
   - d. Wall pass
   - e. Sargent jump test
   - f. Metheny Johnson Test
   - g. Dynamic balance test

   Items a, b, c and d, are found in Scott, M. Gladys, and French, Esther, Evaluation in Physical Education, St. Louis, Mosby Co., 1950, 348 pp.

   Item e is found in McCloy, C. H., Tests and Measurements in Health and Physical Education, New York, F. S. Crofts Company, 1939, 392 pp.

   Item f is found in Bass, "Dynamic Balance Test," Research Quarterly, Vol. 10, pp. 33-52, January, 1939.

2. Brooklyn College — Swimming Test.
   - a. Swim 100 feet.

3. Dartmouth
   - a. Twenty feet rope climb against time
   - b. Broad jump for distance
   - c. Hurdle race against time
   - d. Fifty yard swim against time

   All times and distances have T-scores.

4. Los Angeles State College — 8 tests.
   Based on the eight activity areas offered by the school.

5. Michigan State University — Tests in each course
   - a. Knowledge tests
   - b. Skill demonstrations
   - c. Game playing demonstration — where indicated

6. Ohio University –
    a. Push-ups
    b. Standing broad jumps
    c. Burpee – 20 seconds and
    Swim 25 yards in 17 seconds, return 25 yards any stroke and stay afloat for 1 minute.

The following comments were volunteered by schools answering the survey:

The California Aggies, University of South Carolina, Michigan State, University of Kansas, Chico State College and the University of Maryland, are investigating the possibilities of, and plan to use proficiency tests in the future for solving problems created by enrollments.

Duke, Lehigh, University of California, University of Pittsburgh, Syracuse, Virginia and Yale either use proficiency tests now, or plan to in the future, but only for guidance and classification purposes.

Notre Dame used tests for solving problems created by enrollments during the war years but discontinued them as they were no longer needed.

Kentucky discontinued the tests due to the time element involved, after having used them for five years.

The University of Southern California permits waiving of physical education by passing written and skill tests in the various activities, but not because of increased enrollments. Arizona State University plans to use the waiver type of program in the future.

The College of Pacific limits enrollment to meet their existing staff and facilities. Boston University at Chestnut Hill, Massachusetts and Clemson have no physical education program.

Georgia State University has had decreased enrollment problems.

Three schools use tests as an admission requirement for majors into the School of Health, Physical Education and Recreation.

West Texas State College makes physical education courses for physical education majors harder and is working for the following grade distribution: Freshman and sophomore level courses – 25% A's and B's; junior and senior level courses – 40% A's and B's.

The conclusions reached in this study are:

1. That only approximately 20% of the colleges and universities are faced with problems of increased enrollment.
2. 7.3% using proficiency tests now and 12.7% plan to use them in the future.
3. A majority of the schools who do have increased enrollment have found means such as making better use of existing facilities or expansion of facilities rather than proficiency tests in meeting the problem.
4. Further study should be made to establish the exact number of schools faced with problems of increased enrollments.

THE SERVICE PROGRAM: ITS RESPONSIBILITY FOR PHYSICAL FITNESS

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The service program of physical education is likely to be judged increasingly in the months and perhaps years to come on the extent to which it meets its responsibility in the area of physical fitness. What we do or fail to do along this line in the immediate future may have an important long-range effect upon the service program requirement.

Many of us are familiar, no doubt, with the fact that the service program requirement at the University of Illinois has been under attack. Other schools have reported similar experiences. It was the concensus of those at Illinois that the requirement would stand or fall on evidence relating to its success or failure in achieving meaningful physical fitness results. To what extent this proved to be an accurate forecast in the final disposition of the matter should be of considerable interest to all of us.

The significant point to be recognized here is that the requirement was challenged on its merits with respect to physical fitness. It was challenged through the introduction of a formal resolution in the University Senate by the Head of the Physiology Department who took the position that "in all of his studies and readings he had never found any evidence that exercise contributed to health, happiness, human efficience, disease prevention, longevity and similar conditions."[1]

My purpose in referring to this situation that developed at the University of Illinois is to offer an example of a service program recognized throughout the profession as one of good quality, that was questioned as to worth on the merits of its contribution to physical fitness, and to call attention to the fact that in this particular case an assumption of self-evident truth concerning the benefits of physical activity and exercise was not deemed sufficient cause to render a favorable judgment automatically.

Whether we are particularly in sympathy with the idea or not, the service program is going to be judged to a large extent on its physical fitness value. This is an area of concern which is uniquely and exclusively ours in education. Responsibility cannot be shirked or ignored. In spite of our testimony to the importance of recognizing inter-relationships of mental, emotional, social and physical components of a human being, we are going to be held responsible for physical fitness.

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[1] S. C. Staley, "The Illinois Story," Journal of Health, Physical Education and Recreation, October, 1957, p. 75.

This is perhaps as it should be. In matters of education for leisure, for mental health, for social competency, for discrimination among values, etc., physical education is but one force among many. Should gross evidence of failure become apparent in any of these areas, responsibility would be difficult to place. On the other hand, if the American people, particularly children and youth, are said to be deficient in muscular fitness, who is likely to be blamed? And, incidentally, to whom should people look for expert advice and guidance they might possibly seek in matters of exercise and physical fitness?

Why the service program requirement at Illinois was challenged or why the service program requirement at any other school is likely to be set upon in the future is not the question that should concern us most. Pressure for room to move within tight limitations of various curricula requirements on a college campus will probably always give rise periodically to this sort of trouble. In addition, the normal individuality of human beings with attendant differences in prejudices and understandings will no doubt also continue to be sufficient cause for an assault of this kind to be made from time to time. The question that should concern us most is whether or not we have adequate scientific evidence to back up our case when assailed.

In the case at Illinois, Dr. Staley reports that he was asked to provide a committee with material bearing on the extent to which exercise does contribute to health, happiness, human efficiency, longevity, etc., he says,

> This was done, but as everyone knows, there is a scarcity of scientific material bearing on this subject. Our experience suggests clearly that the profession should expand its research activities in this area.

The search for a scientific approach to the development of physical fitness has been of concern to the profession for a long time. The search has both enlightening and disappointing.

It has been elightening in that the apparently simple assumption that health and physical fitness are strongly and positively related has been revealed as a problem of considerable complexity. Schneider and Karpovich assert that there is no question of some relationship between health and physical fitness, particularly as measured by muscular performance tests; however beyond a minimum of indispensable physical activity, an additional improvement in physical fitness appears to have no effect upon health.[3]

The search has been disappointing in that no magic formula has been devised to serve as a common denominator by which the instructor of physical education can identify goals, select activities, and measure results as he seeks to meet the particular individual physical fitness needs of those he serves. What has been discovered is evidence that there are degrees of physical fitness appropriate to performing specific muscular tasks. An identification of an optimum, general physical fitness for ''effective living'' fails to find support in scientific inquiry.

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[3] Edward C. Schneider and Peter V. Karpovich, Physiology of Muscular Activity, Philadelphia: W. B. Saunders Company, 1949, p. 25.

In spite of the scarcity of scientific evidence the service program requirement at Illinois was not abandoned. The full report of a subcommittee assigned to study the issue and report back to its parent body is recorded in the Journal. The report of the subcommittee includes a recommendation to retain the requirement and offers several reasons in support of this action. Paraphrased, the reasons are as follows:

1. The overwhelming majority of American colleges and universities impose a physical education requirement.
2. For three reasons it might be anticipated that there would be little participation in physical education if it were offered only on an elective basis.
   a. Very few students in the junior and senior classes elect physical education.
   b. Given the size and complexity of the University of Illinois, freshmen are unlikely to ever become acquainted with available physical education facilities if participation is left entirely elective.
   c. Curricula in the various schools and colleges are already so tight that the slack provided by abandoning the physical education requirement would probably be taken up in other areas to the end that elective participation would be rendered even more unlikely.
3. On the difficult and troublesome question of whether physical education contributes to the physical well-being of an individual, at least the following can be said:
   a. Most people think there is a positive correlation. It is a commonly accepted fact of our daily life that most students and faculty think they feel better if physical exercise is given some place in their work program.
   b. On evidence before it the subcommittee believes that physical education courses do contribute to the well being of students.
4. Records of the armed services indicate that approximately 35% of the young men eligible for service were rejected because of lack of physical fitness. Given the present situation the subcommittee believes it would be unwise to remove the compulsory physical education requirement.

At another time and in another place a similar story might not have a similar ending. To another committee the fact that few students participate in physical education on an elective basis might be good reason to recommend dropping the requirement rather than retaining it. The fact that the overwhelming majority of colleges and universities require physical education might mean little more to a particularly tough-minded committee than that the original error had been grossly compounded. The fact that curricula are tight might be considered sufficient reason to free students for more profitable educational experiences than they are likely to get in physical education. On the matter of whether physical education contributes to physical well-being, another committee might very well think it does not. And finally, at another time, when international relations are not so tense, a committee might not be so much concerned with the fact that 35% of young men are rejected for service for physical fitness reasons, if, indeed, the committee would have reason to become acquainted with the fact at all.

In the final analysis "The Illinois Story" is a story about a vote of confidence. It might seem reassuring that an outstanding service program was given a vote of confidence when the chips were down. However, in this particular instance it is obvious that the decision was affected more by faith than fact. It would appear that the Subcommittee, whose report is cited above, was acutely aware of the fact that it had a problem on its hands which promised little in the way of a conclusive answer and that the best it could do was to take into account that many people think physical education contributes to physical well-being; that in view of the fact that physical education might be of considerable value in this respect and that the service program in question was a going concern, it was best not to tamper with it at this particular time. If we look to "The Illinois Story" for comfort, we are not likely to find it.

The message we might receive from the Illinois affair is one that calls for a disciplined reappraisal of the claims we make with respect to physical fitness. This probably requires, at one and the same time, that we step up our research and tone down our allegations.

Our peril at the moment, strangely enough, resides in the fact that we are in the midst of a revival of interest in physical fitness. The term revival is used pointedly in recognition of the fact that interest in physical fitness swells and ebbs from time to time in direct, sympathetic response to such natural and unnatural phenomena as a war or a Kraus. It is a revival with evangelistic overtones, also, in that many quick converts are made to the cause of physical fitness who march out into the world to beat the drums, spread the word, and wring commitments to act from those who fall under their spell. It is to be expected that many youths will be cajoled into perspiring freely and many men of distinction will be persuaded into giving public testimony to the importance of physical fitness. There is more than a slight possibility that all of this will be just so much running in place.

There is a law of nature that says to every action there is always opposed a reaction. This law may apply outside the physical sciences. For it may be that the extent to which we are irresponsible in exploiting the concern of the American people in this matter of physical fitness will have much to do with determining the extent to which an opposite reaction set in. The record of our on-again, off-again performance in the past is not to our credit. If we are to merit the regard of those we seek to serve, retain our integrity, and salvage self-respect, we must face up to the known facts about physical fitness and act in the light of those facts. The unfulfilled enthusiasm we kindle in a hot and heavy pursuit of physical fitness may ultimately work against us as strongly as it seems to work for us.

It is clear that we must continue our search for scientific evidence linking physical fitness with health and well-being. However, while continuing the search we must at the same time develop a perspective that will allow us to act in good faith within the limits of what we now know about physical fitness.

Such a perspective requires that we deal with physical fitness as education rather than training. It suggests that our efforts should be directed at helping students develop toward self-understanding with respect to their physical capacities rather than with improving physical condition as an end in itself. It recommends that we accept responsibility for helping people develop insight as to what is involved in physical work and play as they may expect to grow from youth to maturity and finally to old age. It cautions us to take our measure not in the temporary increase in strength, endurance, and agility of young men who come in our charge but in knowledge, understanding, and attitudes that affect behavior. Does this mean that we must eliminate the physical from physical education? On the contrary, it means that we must be careful lest we unwittingly dispose of education in an insular concern for the physical.

A SERVICE COURSE IN WEIGHT CONTROL

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Introduction.

It is common knowledge that any considerable amount of overweight or underweight is unhealthy and not conducive to long life. A closer analysis of disease figures show that overweight people are apt to develop diabetes, heart disease, high blood pressure, and certain other conditions earlier than people whose weight is normal.[1]

Underweight indivivuals are more likely to suffer from fatigue, anemia, have lower resistance to infection, and are subject to respiratory ailments such as tuberculosis, influenza, and colds.[2]

Overweight and underweight are definitely associated with physical or motor fitness. In most cases, individuals in these categories have neither the muscular power nor endurance to compete in strenuous athletics or prolonged hard work.[3]

The major cause for overweight and underweight is dietary. Most obese persons eat too much, while most thin individuals eat too little. A balance between energy intake (calories) and energy output should be found. Glandular disorders are very rarely the basic reason for deviations from normal weight, although the possiblity should not be discarded.[4]

The overweight person should lower his total calorie intake as well as increase his energy output. Exercise or some phase of athletic participation is very beneficial for increasing energy output as well as adding muscle tone during the weight loss period.[5]

The underweight individual has a different problem. He must increase his caloric intake but should not abstain from exercise. Personal habits, such as sleep, balance of diet, tobacco consumption, and psychological factors are important in total energy output. The activity recommended for underweight persons is heavy resistance exercise (repetitive weight lifting) because of its effectiveness in building muscle bulk.[6]

If the Service Physical Education Programs in our colleges are ready to accept responsibilities in areas other than sports skills and sports knowledges, the area of weight control is a problem which should not be overlooked. In cooperation with the Health Service, the Physical Education Department can make a real contribution to an area of student need.

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*The measurement phase of this course was conducted cooperatively by the writer and Mr. Frederick B. Roby, University of Illinois, who taught one section of the course.

Background.

In March 1956, as a result of instructor discussions about student problems in the area of weight control, a committee was appointed by Professor H. E. Kenney, Supervisor of the Service Program for Men, University of Illinois, to study the possibilities of rendering a service to the students in this area.

The committee consisted of E. R. Reuter (Chairman), E. M. Bernauer, and Dr. Floyd Boys (Medical Advisor), all members of the School of Physical Education, University of Illinois. This committee recommended that a weight control clinic should be offered to students on a voluntary basis. The general plan was to have all instructors of service physical education classes talk privately to those students who were definitely overweight or underweight and urge their participation in the clinic. The instructors signed up 167 students by this method of whom 80 classified themselves as underweight and 87 as overweight.

Three clinic sessions were held during the next eight weeks and although a majority of students did not continue on for all sessions, those who did achieved excellent results.

As a result of this clinic the weight control committee concluded that:

1. There are many students in the Service Program in definite need of an education for weight control.
2. There is a great interest by overweight and underweight students in weight control problems. These students are motivated by personal appearance factors and, to a slightly lesser degree, by personal health. This interest, and the participation by each student, must be constantly motivated by progress in losing or gaining weight and an appreciation of the implications involved in the near future.
3. Since the weight control problem cannot be permanently solved by short-term diets or activity programs, an education program should be organized which will have a permanent effect on the attitudes of those in need. Knowledges concerning the health implications of abnormal body weight and the scientific methods of approaching this problem must be taught. Personal evaluation methods which can be used in future years to supply the needed motivation necessary to continue the program must also be covered in such an education. Since physical condition is associated with weight control we must also educate the individual in appropriate physical activities and give him the opportunity to practice these activities under proper supervision.

The committee agreed that the best means of reaching the objectives in this area would be to organize a service course in weight control.

The Course, Weight Control.

The course, Weight Control (PEM 105) was organized by the above committee and taught on an experimental basis during the spring semester, (1956-57). Only two sections were offered for the initial enrollment, as student registration for such a course was unpredictable.

The main objectives of the weight control course are (1) to have the student participate in a supervised program of physical activities and diet control to effect an immediate change toward normal weight, and (2) to cause a permanent change of student attitude which will encourage him to follow proper weight control habits throughout life.

The second objective is more difficult to achieve, but is by far the most important. Without some degree of success in attitude change, temporary changes caused during the semester are entirely wasted.

The course content includes four main programs.

1. The Activity Program. The activity program for overweight persons consists primarily of high repetitive exercises and endurance type running. The underweights participate in a program of heavy resistance exercises (exercising with weights), based on low repetitions with progressively increasing weight.

2. A Self-Appraisal Program. The self-appraisal program consists of a series of simple tests and measurements which will enable the student to evaluate his progress ovjectively. Periodic measurements of body fat, weight, and certain girths, somatotyping, and simple tests of organic and motor fitness are plotted on graphs to stimulate motivation.

3. Knowledges About Weight Control and Related Implications. The knowledge area is covered through lectures, discussions, films, and a term paper. To be covered are such related topics as:

a. The relationship between exercise and weight control.
b. Food values, the balanced diet, and possible hazards of diet fads.
c. The relationship between abnormal body weight, longevity, and disease.
d. The over-all relationships between good health habits and weight control.

4. Participation in a Prescribed Diet. The diet program is prescribed according to individual need. The emphasis is on the balanced diet with calorie control. It is recognized, of course, that the ability of individual students in obtaining prescribed diets in dormitory eating facilities is a serious limitation of the program.

The first two sections were taught by E. R. Reuter and F. B. Roby. Each course was taught on a 16 week semester basis, with one section meeting for three 30 minute periods per week, while the other section met for two 75 minute periods a week.

Procedure.

Registration in Weight Control is limited to students who are significantly over or under normal weight limits for their size and body frame. An attempt is made to enroll an approximately equal number of over and under weight persons.

The physical education instructors of all service classes were asked to discuss the weight control problem with students in need, and to give those students who indicated interest in the weight control course an appointment card to be interviewed by a member of the weight control committee. During the interview the course was explained in detail and a place was reserved for the student in the course for the next semester. This guidance procedure is voluntary on the students part, although he must be in definite need as judged by the interviewing committee member.

During the first class period a personal history questionnaire was was given to each student. This survey included a history of previous and present illnesses, health habits, and recreational skills. These personal histories were carefully screedned by the instructor and students with certain medical complaints or past illnesses were referred to Dr. Floyd Boys, M.D. for personal consultation.

At this point, the importance of the medical doctor to this course should be emphasized. There are some people who might be critical of a Physical Education Department teaching in the area of health science and recommending diets to students. The physician in this situation can be very helpful in providing the course instructors with medical advice and protection.

A form is also given to each student during the first class period instructing him to write down in the spaces provided everything he eats and drinks for a four day period. He is asked not to vary his regular pattern of diet during this time. Following the four day period each individual is given additional forms and charts which enable him to analyze his diet for caloric intake as well as for balance of necessary food substances.

During the first week physical measurements are taken of each student by the instructors. These measurements include weight, height, biceps, girth (flexed and tensed), chest girth (normal), abdominal girth, hip girth, thigh girth, calf girth, chin fat, hip fat, and abdominal fat. The fat measures were made by spring calipers. Ponderal index and a general estimation of somatotype ratings were made and explained to the class. Class interest in these measures and their implications was very high and seemed to motivate the students in the class activities.

The above measures were also taken at mid-semester (8 weeks) and at the end of the semester (16 weeks). In addition to these three measurement periods, each student reported his weight once a week. This weight was plotted on graph paper on which the student also plotted his average daily caloric intake.

With a few special exceptions, two main diet programs were outlined by Dr. Boys. The diet recommended for the overweights was a 1200 calorie basic reducing diet, while the underweights were given a 2500-3000 calorie plan. The latter plan included between-meal snacks. Both diets emphasize the factor of overall balance between the necessary food substances. A third diet was also available; a 2000 calorie weight maintainence diet for use after normal weight was attained.

The exercise program began after the first week and continued throughout the semester. Progress charts listing the exercises were given to each student which enabled him to record his progress at various intervals. As a matter of interest, the Harvard five minute step test was self-administered by all students at the beginning and end of the semester. As expected, the overweight students made the greatest gains in the heart recovery scores.

The overweight students were given an activity program of endurance exercises and running. This program began moderately and increased according to individual capacities. Obese individuals are not physically ambitious and by experience, as well as by admission of the group, calisthenics by the group method resulted in better performance than individual exercise programs. Utilizing student leadership during the calisthenics added to class spirit. The following exercises were stressed during the semester for the overweight student:

sit-ups
side leg raises
side trunk bends
trunk felxion
trunk hyperextension
push-ups
straddle chins
knee bends
toe hops
trunk twisting

Running was particularly stressed for the overweights. At the beginning of the semester most of this group could not run ralf a mile without stopping. At the semester's end all overweights ran a full mile or more. Soccer and basketball were occasionally introduced to vary the program.

The underweights were given a program of heavy resistance exercises (weight lifting). For the most part repetitions were kept at a minimum, with the emphasis on increasing the amount of weight lifted. The following weight lifting exercises were stressed during the course:

bent knee sit-ups	(10 - 15 repetitions)
straight and side back lifts	(10 - 15 repetitions)
two hand press	(5 - 8 repetitions)
knee bends	(10 - 15 repetitions)
pectoral exercises	(10 - 15 repetitions)
two hand curl	(5 - 8 repetitions)
toe raises	(10 - 15 repetitions)
bench press	(5 - 8 repetitions)
rowing exercise	(5 - 8 repetitions)
shoulder shrug	(10 - 15 repetitions)

In addition to the activity periods certain periods were designated as lecture and discussion classes. During these classes such related topics as body weight and longevity, disease factors, exercise, food values, balanced diets, diet fads, and health habits were discussed.

A term report (1500-2500 words) related to weight control problems was also required. The students were referred to the Education Index, the Readers Guide to Periodic Literature, as well as references related specifically to weight control. The term paper assignment is consistant with "sports appreciation" assignments required in other physical education classes at the University of Illinois.

Examination and Grading Plan.

The following plan is used for the purpose of computing semester grades:

1. Work book - self appraisal records, notes on class discussions, and collection of current magazine articles 25%
2. Written tests on knowledges covered above 25%
3. Progress in weight control (loss or gain of weight) relative to class distribution 30%
4. Term paper. 10%
5. Class participation (attendance, attitude, etc.) 10%

Results.

Twenty-three overweight and fifteen underweight students completed the course. Average changes and the range of changes in the physical measurements are presented in Table I.

As expected, the greatest physical changes occurred in overweight students. The average loss of 17.75 pounds is reflected in all girth and fat measurements, especially in the abdominal and hip area.

The development of underweight individuals is a long term project. The average gain of 3.84 pounds was disappointing, although several individuals gained up to eight and ten pounds. Gains in this group were associated with increases in upper body development. Other measurement changes were insignificant.

Although no attempt was made to study attitude objectively, it was definitely felt that these students gained a definite appreciation of their weight control problem and a better understanding of how to combat it. Many students personally conveyed their appreciation to the instructor at the end of the semester.

TABLE I

Physical Measurement Changes For 16 Weeks

	Overweights (N–23)		Underweights (N–15)	
Measurements*	Mean Change	Range of Change	Mean Change	Range of Change
Weight	-17.75	0 to -33.25	+ 3.84	0 to +10.50
Biceps girth	- .88	+.62 to - 2.00	+ .23	0 to + .50
Chest girth	- 1.97	+.50 to - 3.50	+ 1.07	- .37 to + 2.62
Abdominal girth	- 3.88	-.75 to - 6.36	+ .24	-1.25 to + 1.25
Hip girth	- 2.79	-.50 to - 5.12	- .04	- .62 to + 1.62
Thigh girth	- 2.05	-.37 to - 4.25	- .12	- .75 to + .75
Calf girth	- .46	+.25 to - .87	- .09	- .37 to + .12
Chin fat	- 4.6	- 2 to - 10	0	- 2 to + 1
Hip fat	-10.1	0 to - 19	- 1.67	- 8 to + 5
Abdominal fat	-14.1	- 6 to - 21	- 1.27	- 9 to + 3

*Weight was measured in pounds, fat in millimeters, and all other measures taken in inches.

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1. Fishbein, Morris, et al, Your Weight and How to Control It, Garden City, N.Y.: Doubleday and Company, 1949, Chapter 2.

2. Ibid., Chapter 7.

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4. Fishbein, op. cit., Chapter 4.

5. Mayer, Jean and F. J. Stare, "Exercise and Weight Control: Frequent Misconceptions," Journal of the American Dietic Association, 29:340-43, 1953.

6. Murray, Jim and Peter V. Karpovich, Weight Training in Athletics, Englewood Clifts: Prentice Hall, Inc. 1956. 214 pp.

THE IMPROVEMENT OF SOCIAL BEHAVIOR IN THE PHYSICAL EDUCATION PROGRAM FOR THE GENERAL COLLEGE STUDENT

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The improvement of social behavior has often been included in the purposes of physical education. College physical educators frequently claim the area of personality development as significant in their work. We firmly believe in principles of fair play. Physical education, like other areas in the college program, should contribute to the improvement of social behavior. This responsibility must be accepted as we concern ourselves with the impact of physical education upon the whole of life and seek outcomes other than strength and motor skills.

A decade ago the President's Commission on Higher Education stated eleven objectives of general education as follows:

1. To develop for the regulation of one's personal and civic life a code of behavior based on ethical principles consistent with democratic ideals.
2. To participate actively as an informed and responsible citizen in solving the social, economic and political problems of one's community, State and Nation.
3. To recognize the interdependence of the different people of the world and one's personal responsibility for fostering international understanding and peace.
4. To understand the common phenomena in one's physical environment, to apply habits of scientific thought to both personal and civic problems, and to appreciate the implications of scientific discoveries for human welfare.
5. To understand the ideas of others and to express one's own effectively.
6. To attain a satisfactory emotional and social adjustment.
7. To maintain and improve his own health and to cooperate actively and intelligently in solving community health problems.
8. To understand and enjoy literature, art, music, and other cultural activities as expressions of personal and social experience, and to participate to some extent in some form of creative activity.
9. To acquire the knowledge and attitudes basic to a satisfying family life.
10. To choose a socially useful and personally satisfying vocation that will permit one to use to the fullest his particular interests and abilities.

11. To acquire and use the skills and habits involved in critical and constructive thinking.[1]

Those objectives stated in 1947, provide a frame of reference for college physical education. A review of them indicates need for their acceptance and consideration in the current social scene with full recognition of the principle that objectives should be dynamic rather than static.

More recently a national conference was held on physical education for college men. The participants outlined specific contributions to the general program of higher education. Selected from the outline of these contributions are the following:

> College men and women benefit from physical education in improved human relations.
>
> Physical education provides opportunities for the continued development and improvement of democratic behavior; opportunities for the individual to develop an acceptable ethical code; and opportunities for individuals to appreciate, understand, and accept individual and cultural differences.[2]

We realize that such "opportunities" do exist in college physical education and are cognizant too, that the quality of the instruction determines the nature and extent of any contributions which physical education makes in the directions indicated. Further, we are aware that learning can be good or bad, that learning occurs as the student reacts with his environment throughout his college life, and, therefore, that physical education contributes, and only contributes, to the changes in the improvement of democratic behavior, the development of an ethical code, and improved human relations.

The charge to physical education is clear. The Educational Policies Commission has defined moral and spiritual values as "those values which, when applied in human behavior, exalt and refine life and bring it into accord with the standards of conduct that are approved in our democratic culture."[3] And has also stated, "The development of moral and spiritual values is basic to all other educational objectives. Education uninspired by moral and spiritual values is directionless. Values unapplied in human behavior are empty."[4] A secure society depends upon acceptance of a system of moral and spiritual values. A democratic society such as ours, one in which individual freedom consistent with the common good prevails, depends upon the cultivation of honesty, personal integrity and self-discipline in the human relations of its members.

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[1] Higher Education for American Democracy. Volume I, Establishing the Goals. A Report of the President's Commission on Higher Education, Washington, D. C.: U. S. Government Printing Office, 1947. pp. 50-58.

[2] Washington Conference Report, Physical Education for College Men and Women. Washington, D. C.: American Association for Health, Physical Education and Recreation, 1954. p. 8.

[3] Educational Policies Commission, Moral and Spiritual Values in the Public Schools. Washington, D. C.: National Education Association, 1951, p. 3.

The American people are agreed on certain values. The Educational Policies Commission has discussed ten such values all of which have implications for the conduct of college physical education. They are:

1. The basic moral and spiritual value in American life is the supreme importance of the individual personality. (Those values which follow are based upon the supremacy of the individual personality).
2. Each person should feel responsible for the consequences of his own conduct.
3. Institutional arrangements are the servants of mankind .... Social institutions .... are means of serving people. They are never more important than people.
4. Mutual consent is better than violence .... The principle that group decisions should be made and enforced by common consent applies in all relationships of life.
5. The human mind should be liberated by access to information and opinion .... The rights of a man to speak his mind, to worship according to conscience and training and to have access to knowledge and divergent opinions are recent achievements.
6. Excellence in mind, character, and creative ability should be fostered .... The highly gifted as well as the average or handicapped students need individual attention.
7. All persons should be judged by the same moral standards .... No man has a moral and inborn right to injure, persecute, dominate, or exploit others. The American character is typically marked by an earnest search for justice and fair play.
8. The concept of brotherhood should take precedence over selfish interests .... Brotherhood leads to a broad and expanding humanitarianism, a sympathetic concern for the distress of other people.
9. Each person should have the greatest possible opportunity for the pursuit of happiness, provided only that such activities do not substantially interfere with the similar opportunities of others.
10. Each person should be offered the emotional and spiritual experiences which transcend the materialistic aspects of life.[5]

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[4] Educational Policies Commission, op. cit., pp. 6-7.

[5] Educational Policies Commission, op. cit., pp. 17-29.

Such a statement of moral and spiritual values may well be reviewed, reinterpreted in view of new experience, and reappraised from time to time. Agreement among staff members on a statement of values for direction of college physical education would be highly desirable. Involvement of students and other faculty members in the process is indicated as such goals are defined.

While acceptance of values as goals by a staff is of paramount importance, the outcomes will depend on the efforts of each individual teacher — his ingenuity, imagination, character, scholarship, skill and initiative. The physical educator is in a strategic position to observe the acceptance of values by students as they participate in the program. We are more fortunate than some of our colleagues in this respect and thus should assume responsibilities consistent with out opportunities in the area of human relations. Traits such as honesty, integrity, reliability, cooperativeness and their opposites are revealed in the physical education experiences of students on the playfield, in the gymnasium, shower and locker rooms. These experiences together with those in every college building, classroom and residence hall, contribute plus or minus, to the understanding and appreciation or moral values.

Available evidence suggests as the most likely effective procedure, that the teaching of moral and spiritual values should become a vital part of all instruction. Thus, such teaching should not be accidental; it should be positive in its direction as opportunities arise even though not precisely planned or scheduled during a class period.

The exemplification of moral values by the college and its personnel (academic and non-academic) are invaluable in the experiences of college students. We constantly deal in values. Our influence, good or bad, depends upon the nature of our relations with students, colleagues and the public, the manner in which we teach, the actions we approve and disapprove.

Have we failed to contribute as we should to the improvement of social behavior, to the attainment of satisfactory emotional and social adjustment, to the development and improvement of democratic behavior, and to the development of an acceptable ethical code for college students? Kistler concluded from a study involving three-hundred-and-fifty freshmen men enrolled in required courses in physical education at Louisiana State University, "that only a relatively small number of the students were conscious of having received benefits related to social and/or ethical values from participation in physical education classes." He reported that "grading was done on the basis of physical fitness, skill and knowledge" and stated further. "It may be possible that we can help the students to gain a better understanding, appreciation, and consciousness of the social and ethical values in physical education if we include these factors in grading processes in a more specific way."[6]

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[6] Kistler, Joy, "Student Opinion as to Values Derived from Physical Education," American Academy of Physical Education, Professional Contributions, No. 3, p. 72.

Kistler reported last year on a study which involved a random sampling of three hundred men and one hundred women enrolled in the basic physical education classes at Louisiana State University. He suggested that the "data would seem to indicate the importance of more emphasis upon a positive and planned approach to Sportsmanship Education in which:

1. Stress is placed upon consideration of the 'spirit' of the rules as well as the letter.
2. More effort is made to offset the attitudes that 'it is smart' if you can get away with it.
3. Stress is placed upon the idea of sharing with officials the responsibility for seeing to it that contests are played according to the spirit of the rules.
4. Stressing the idea that the game, the contest, the thrill inherent in playing an opponent when he is at his best is the thing that counts."[7]

Physical education must accept its full share of responsibility for contributing to the improvement of human relations, a responsibility which should be shared by other departments in all institutions of higher education. As Cobb has stated, "It is always important to remember that the organic unity of an institution is quite as real as that of a human being."[8]

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[7] Kistler, Joy, "Attitudes Expressed about Behavior Demonstrated in Certain Specific Situations Occurring in Sports," Proceedings, College Physical Education Association, 1957. p. 58.

[8] Cobb, Louise Staples, A Study of the Functions of Physical Education in Higher Education. New York: Bureau of Publications, Teachers College, Columbia University, 1943. p. 162.

THE GRADUATE PROGRAM IN PHYSICAL EDUCATION SHOULD EMPHASIZE ADMINISTRATION

A. A. Esslinger
University of Oregon

Three reasons can be postulated why the graduate program in physical education should emphasize administration. These are: (1) The great majority of graduate students want to become administrators; (2) administration in physical education is so involved and complex that considerable emphasis is necessary; and (3) the changing concept of administration requires a considerable amount of professional preparation.

1. It is a well-established fact that more graduate students, particularly doctoral candidates, have an administrative position as their professional objective than any other. It is true that many young graduate students want their master's degree to qualify for pèrmanent certification. However, as they gain some experience they aspire to become administrators. A survey of the 200 graduate students on our active files at the University of Oregon indicates that more than 75% have selected administration as their area of concentration. The experience in other institutions supports the popularity of the administration area.

Why does such a preponderate number of graduate students want to become administrators? A variety of reasons suggest themselves. Higher salary and academic rank are undoubtedly leading considerations. Greater security may be an inducement. Some men are motivated to become administrators out of a desire to create a strong program or department. They have a creative urge which they wish to express by developing a successful program. Another possible explanation is that some individuals would prefer to administer than to teach or to do research. By virtue of their personality and interest they feel that their greatest contribution can be made as an administrator or supervisor.

The urge of many young graduate students to become an administrator is rarely based upon an adequate appreciation of the nature of this type of work. They are beguiled by certain aspects of administration without being aware of the liabilities and disadvantages. They don't realize that the job of the executive is never done — that he puts in far more hours and takes home much more work than other staff members. The demands upon his time make it difficult, if not impossible, to do justice to his teaching or to such creative interests as research or writing. The greates satisfaction of teaching — the intimate association with bright, eager, promising students — is denied him. Instead of associating leisurely with dtudents, the insistent demands of his desk —

the appointments, committees, correspondence, reports, purchase requisitions, budgets, etc., — occupy him. His responsibility is heavy — whatever goes wrong he is ultimately blamed. Conversely, no matter how successful his department is, he never receives any credit or recognition. The administrator frequently must discharge disagreeable assignments such as discharging or discipling personnel and refusing to recommend tenure and advances in rank and salary to staff members. It is for these various reasons that many staff members refuse to accept an administrative assignment and why many executives forsake administration to return to teaching and research.

2. A second reason for graduate departments to stress administration is that the scope of this type of work is so varied and extensive that much emphasis is demanded. Our knowledge in various aspects of administration has advanced tremendously over the years. An enormous amount of material is now available. The administrator must know the technique of administration, how to work effectively with people, to run an office, to make budgets, to purchase equipment and supplies, to build and maintain physical education buildings and grounds, to supervise staff and civil service employees, to develop a public relations program, to be an expert in curriculum construction and teaching methodology, and to be familiar with all aspects of the service, intramural, intercollegiate and teacher education programs. In many institutions the physical education department or school also embraces health education and recreation which further expands the scope of the administrator's job.

If one contemplates for a moment the chapter headings of one of the standard texts in administration he can appreciate the magniture of the administrator's job. A respectable graduate course can certainly be developed in each of the following areas: Public relations, curriculum construction, city supervision, intramural athletics, service curriculum, construction and maintenance of physical education facilities, intercollegiate athletics, professional physical education, tests and measurements and remedial physical education programs. Twenty years ago most of the above areas could be covered in one advanced administration graduate course. Where formerly the only written material available in an area was represented by a chapter in a textbook we now have a number of books available on the subject.

It might be objected that the administrator cannot be expected to be an expert in each of the above areas — that he has specialists on his own staff to whom he can look for guidance. However, it is to his advantage if the administrator is conversant with all these aspects. After alll he must make decisions in regard to each, he must recruit personnel to work in each area, to purchase equipment and the like.

3. A third reason why graduate departments should emphasize administration is that the concept of the nature of administration has been revolutionized in the past quarter century. A vast amount of research in

human behavior which has significant relationships to administration has become available. The fields of psychology and sociology have been particularly productive in this regard. In addition, an enormous amount of research and experience in administration in business, industry, government, the military and in education has important implications for physical education administrators. One of the interesting trends of recent years has been the development of many special courses in public administration, scientific management, and personnel administration to which industry, business, government and the armed services sends administrators for specialized training.

The facts of the matter are that there has been developed such a vast amount of data relating to administration that authorities now talk of "the science of administration." The concept of the administrator as a "rugged individualist" is outmoded. Neither can we be content with the traditional practice of training administrators by a long period of apprenticeship. We can train administrators precisely as we train scientists, engineers and doctors.

In summary, the importance of well-trained administrators needs to be pointed out. Perhaps this importance should have been offered as a fourth reason why graduate departments should stress administration. Needless to say, the success of physical education in a college or university depends more upon the administrator than any one other individual. As a rule a department, division or school of physical education is only as good as the administrator. The administrator can make or break his department. Weak departments exist because of weak administrators. Every department, division or school of physical education has certain potentialities which can only be realized uner the leadership of a capable, well-trained administrator.

GRADUATE STUDY IN PHYSICAL EDUCATION AND SCHOLARSHIPS

S. C. Staley
University of Illinois

My part in this meeting consists of, first, making a brief report on the assigned topic and then later, participating in a discussion regarding the same. For purposes of convenience, I propose to frame my main remarks under four headings. These will be indicated as I proceed.

1. What is physical education? I have discussed this subject elsewhere and have not changed my mind so for the purpose of this discussion, physical education is defined as a program of teaching and learning in the areas of life known as sport, dance and exercise. The only point to be added here is that while the program is and should undertake to develop participation in activities, through engendering skills, knowledges, attitudes, and conditions, it should not be limited to this along. To meet its full responsibility it must also undertake to develop appreciation regarding each of the three fields through engendering knowledges and understandings of their many diverse implications -- social, economic, hygienic, political, military and other.

2. What is scholarship? The word scholarship is difficult to define and, unfortunately, because of time limitations, it cannot be fully defined here. For our present purpose, however, it is conceived as the activity of analyzing and/or synthesizing facts. Let me elaborate. Research may be defined as the activity of attempting to determine facts. In a general sense research ends when the facts have been gathered. Scholarship, in contrast, consists of attempting to evaluate the assembled facts, or, more explicitly, the activity of determining principles. To round out the story, research and scholarship are frequently combined in one enterprise.

Scholarly activity like most other human activity has a wide quantitative scope, ranging from a very narrow and/or limited field to a very broad and/or comprehensive field. For example, at one extreme it may consist of appraising the impact of football on the social behavior of a particular boy. At the other extreme it may consist of appraising the impact of interscholastic sports on the social behavior of a high school population.

Similarly, the activity has a wide qualitative scope, ranging from a relatively casual and/or informal approach to a very thorough and/or formal approach. For example, at one extreme the approach may be completely subjective and humanistic; at the other extreme the approach may be highly objective and materialistic.

It is to be noted, also, that scholarly activity is essentially if not wholly an intellectual enterprise. To avoid misinterpretation, however, it should be pointed out that while all scholarly activity is automatically intellectual, all intellectual activity is not automatically scholarly. Scholarly activity is a very special kind of thinking entailing concentrated and persistent application combined with a high order of discrimination and logical reasoning.

Finally, it may be pointed out that while all people inherit some capacity for scholarly work, the ability to engage in high grade activity of this sort, as with all other human abilities, must be developed. In scholarly activity, as in sport, or music, or literature, or medicine, the level of performing ability ranges from a novice level to an expert level and, in the first as in the last, differences are explained in large part by differences in training and experience.

3. What is the Department of Physical Education's responsibility for scholarly activity? This raises a prior question: What is a University's responsibility for scholarly activity? I think we can agree here that historically and traditionally scholarly activity is considered to be a fundamental function of a University. If we take the position, as we do, that the Department of Physical Education is an integral part of a University, then it only follows that this department like all of the others must assume the responsibility of carrying on a program of this order.

4. How can the Department of Physical Education do this job? There is, of course, no ''pat'' answer to the question. Nonetheless, it is apparent that the following procedures would contribute to the wanted end.

a. Appoint as teachers only individuals who have some appreciation of scholarship.

b. Appoint one or two teachers who are qualified scholars.

c. Include some scholarly activity (quality reading, writing, lectures, and discussion) in all courses.

d. Include a few courses that are basically scholarly in type, such as History of sport, History of dance, History of exercise, Sport in American culture, etc.

In closing it seems appropriate to make four further observations:

1. Sport, dance, and exercise have played a tremendous role in American life. Every American has not only participated directly in each of these activities (as performer, spectator, reader, leader, officials, and the like) but further and, perhaps more important, the cultural pattern of the nation has been and will be deeply and widely effected by

these activities. As it happens, however, the nation has little appreciation (knowledge and understanding) of their scope and significance. Since these activities constitute "the world of physical education," the task of studying the scope and significance of these activities and reporting findings resides with this profession. This means, in short, that this professional group, like other respected professional groups, must nurture researchers and scholars and foster research and scholarly activity.

2. In the past our service programs in physical education have been pointed at training students in the technics of participation. This lone approach is not adequate to the need. To do the job more adequately this must be supplemented by a program of education in appreciation. But to do this we must first provide a fund of resource materials, and this can be done only through research and scholarship in the indicated areas.

3. In the past our professional training program has been focused on training students in the technics of performance, teaching, and organization. The point of significance here is that if this program is to assume its full responsibility, train teachers who are subject matter authorities as well as operational technicians, it must be expanded to include research and scholarly offerings.

4. Finally, it seems desirable to point out that recent scientific developments (artificial satellites, intercontinental missiles, and the like) promise to have a terrific impact on American education. There is every reason to believe that in the years immediately ahead there will be a major contest for the assignment of school time. The only way in which physical education can meet the coming challenge is through up-grading the quality of its work. But to do this the all important requirement is more and better research and scholarly activity.

THE GRADUATE PROGRAM IN PHYSICAL EDUCATION SHOULD EMPHASIZE TEACHING

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State University of Iowa

During the few minutes at my disposal, I should like to direct your attention to the urgent need for increased emphasis at the graduate level upon preparation for effective teaching and to suggest a few ways in which such emphasis might be accomplished. I should also like to suggest to you that in our scramble to become academically acceptable, we may have patterned our graduate programs in physical education after those in the natural sciences when the circumstances that underlie the two situations are not necessarily analogous.

It seems to me that in our graduate programs we are always in danger of focusing too much of our attention toward mastery of the skills of research and the production of scholarly works directed toward a very limited audience, while neglecting to take full advantage of the opportunities to communicate with a very large audience through our graduates who go out to all parts of the nation to teach. The fate of physical education lies in the hands those who present physical education to the general population. Certainly those of us who teach at the graduate level share a major part of the responsibility for seeing to it that those who translate our thoughts into action are capable interpreters.

The very nature of the professional program in physical education demands that major emphasis be given at the graduate level to the development of master teachers. The fundamental purpose for which the entire professional program exists is the training of teachers of physical education. In chemistry, in physics, in mathematics, in agriculture, in engineering, — in almost every field of human endeavor -- one may easily find and, without difficulty, justify college and university programs of instruction that do not have as a primary purpose the training of teachers in the particular field in question. However, one can hardly imagine and certainly cannot justify a professional program of physical education that is not designed to train teachers of physical education. The word ''education'' in the term ''physical education'' fixes the purpose for which the program of instruction should be designed and immediately identifies those in the program as prospective members of one of the most ancient and honored of the professions — the profession of teaching.

I have no quarrel with those who advocate that the administration of physical education, research, and scholarly work should be emphasized at the graduate level, as my distinguished colleagues have so ably done. However, we must not lose sight of the fact that these are only the means through which the primary purpose of the graduate program, namely, the development of master teachers and the subsequent improvement of instruction in physical education, is accomplished. The declared purpose of administration in physical education is to facilitate effective instruction. One can hardly conceive of a research problem in physical education that is not concerned, either directly or indirectly, with determining what should be taught, when and for how long it should be taught, and how it should be taught. For what purpose other than to develop excellent teachers should scholarship in physical education be encouraged? Obviously all aspects of the graduate program of physical education focus upon the single problem -- the training of teachers.

If one cares to look, there is considerable evidence to show that past and current programs of professional training in physical education have not produced particularly effective teachers. The results of statewide surveys of the nature and status of the physical education programs offered in the secondary schools of the United States do not indicate that master teachers are at work in such schools. The reluctance of many college students to enroll in service courses, and the eagerness with which many of these students complete the minimum requirements in physical education and vanish from the department, does not present a strong argument that physical education is being effectively taught in either the secondary schools or the colleges. The fact that an educational system in which physical education is often required from the first grade through college has produced a generation that allows the United States to be correctly classified as a nation of spectators does little to convince anyone that physical education has been or is being well taught.

The results of a study recently completed at the State University of Iowa further illustrate the need for increased emphasis at the graduate level upon preparation in the art of teaching physical education. Bundgaard (1) devised a check list by means of which an observer could record whether or not specific principles of learning were applied in the methods employed in teaching physical education classes. The items included in the check list were based upon commonly accepted procedures for the organization and conduct of classes in physical education and upon accepted principles of learning, which principles are reflected in good teaching. Each of the items was stated in a manner which enabled the observer to record "yes" if the principle or procedure described in the item was applied or practiced during the class period, and "no" if the principle or procedure was not applied or practiced. The items were not concerned with profound or obscure concepts. They were such statements as: "Did the instructor provide opportunities for the practice of skills?"; "Did the instructor analyze the performance of the students and make attempts to correct obvious errors?"; and, "During the class period, did the students engage in exercise of sufficient vigor to cause a notable increase in the breathing rate and to produce visible perspiration?"

Bundgaard visited 72 high schools that were a stratified random sample of the high schools in Iowa and observed 92 classes in physical education. An analysis of the data obtained by means of the check list showed that the teachers were doing very little teaching. An unbiased evaluation of their efforts would force one to regard most of them as referees rather than as teachers. About eighty percent of the teachers whose classes were observed had majors in physical education and about thirteen percent had minors in physical education. Almost seventy percent of the teachers had completed or were taking graduate courses and twenty percent had already earned the master's degree. Obviously, a graduate program suitable for most of these teachers should emphasize the art of teaching.

In general, the graduate student is more mature and has a wider background of experience than has the undergraduate. Those of you who teach during the summer sessions in which most of the students are teachers "in from the field" are well aware of the contrast between such students and the undergraduates with whom you deal during the regular session. For the average undergraduate, teaching is far removed from his college experiences. He knows little of the urgent problems he will face as a teacher and, too often, he cares even less. For the undergraduate student in physical education particularly, the problems at hand are all-absorbing. Characteristically, he is an active participant in a wide variety of activities that are by nature extra-curricular. Very frequently he is a participant in intercollegiate athletics, an activity that consumes a major share of his time and occupies a major portion of his interests. He is not easily motivated to consider seriously the problems of teaching; perhaps he is not even capable of doing so.

On the other hand, the graduate student is usually a student with a definite purpose. He is in school to learn how to be a better teacher of physical education and a better athletics coach than he has been in the past. Further, he is acquainted, first-hand, with the problems encountered by the teacher and he is looking for the knowledge and the techniques that will help him solve those problems. When dealing with the abstract concepts and principles associated with teaching, he can recall specific students and specific situations in which those concepts could have been and, in the future, can be applied. He is much more capable of profiting from instruction in teaching than he was at an undergraduate. It seems to me that it is very unfortunate that he has so little opportunity to receive such instruction at the graduate level.

We should provide many opportunities in our graduate program for both instruction and practice in teaching. First, such courses as "The Curriculum in Physical Education," "The Psychology of Physical Education," "The Supervision of Physical Education," and "Methods in Physical Education" should play prominent roles in the preparation of the graduate student.

Second, the graduate students who are enrolled in our classes may be given opportunities to actively participate in the teaching of those classes. Far too much of the instruction at the graduate level consists of lectures by the professor to which the students, somewhat cowed by the threat of the three-point-average requirement, listen in passive silence as they feverishly transfer for future reference the gems of wisdom to their many notebooks. Full use should be made of the graduate seminar in which the students are given a major share of the responsibility for conducting discussions and in which they may demonstrate their ability to direct effective learning situations. The preparation and presentation of a series of lectures — not highly specialized reports, but the type of lectures that college teachers are called upon to deliver -- should be an experience required of every graduate student. In those courses in which the primary concern is activities — be they activities conducted in the research laboratory, the gymnasium, or on the playfield — the graduate student deserves the opportunity of sharing in the teaching of those activities.

I think we need not be concerned that under such circumstances learning will suffer. The situation in which one must teach is a very effective learning situation, particularly for the person who must do the teaching. Further we, the professors, will gain information which will enable us to abandon the unfortunate practice of recommending for teaching positions young men of whose teaching ability we know little or nothing.

Third, in our graduate program we should emphasize teaching by making a carefully planned effort to supervise and to improve the quality of the teaching done by our graduate teaching assistants. Too often we appoint them, assign them to their teaching duties, make a few superficial ''inspections'' of their classes during the early weeks of the semester, and then forget about them and leave them to their own devices. When we do this, we not only fail to take advantage of an excellent opportunity to improve the teaching ability of those who will later represent our department, but also we do the graduate teaching assistants a rank injustice. They deserve our attention, our supervision, and our advice. It is our duty to seek to improve them as teachers rather than to exploit in exchange for meager stipends the teaching skills they bring to us.

Fourth and finally, at the graduate level we can emphasize teaching by demonstration and by example. We can ourselves teach with skill and with enthusiasm. We can hardly expect our graduate students to develop into master teachers if we treat our own teaching duties lightly. Unless we show that teaching is important to us — a task of central significance to us — we are not likely to infect our students with enthusiasm for teaching. We shoule attempt to teach in a manner which if imitated by our students when they go out to teach would be for all but the most gifted a highly desirable practice.

I should like to close my few remarks by stating again the thought with which I opened this discussion. Our best chance to exert an influence upon the lives of the general population comes through the personal contacts of teachers with students in physical education classes. Whether or not physical education prospers — both in terms of prestige and in terms of services rendered — depends primarily upon the ability of those we send out to teach in the schools and colleges. To fail to emphasize teaching in the preparation of our graduate students is an invitation to disaster.

(1) Bundgaard, A. C. ''Physical Education for Boys in Selected Iowa High Schools.'' Ph.D. Dissertation; Iowa City, State University of Iowa, 1958.

THE CRUCIAL YEARS OF PROFESSIONAL PREPARATION

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The "Crucial Years" as used in this presentation refers to the ten year period 1958-1968. These years will be crucial because it is precisely in this period that professional preparation will make teaching a pre-eminent profession or the effort will be abandoned or postponed for many years. Professional preparation in physical education is on the threshold of destiny; destined to surpass all the achievements of the past 50 years or to become less effective in making its contribution. Conditions are present to provide the greatest opportunity for improvement of programs. Because of recent developments we know enough about preparing good teachers to push the profession ahead at least 25 years. Leadership, alone, will determine what will happen. This same period can be a very dangerous one if leadership falters and responsible persons are unable to cope successfully or fail to evaluate correctly the impact of new developments.

Because of new developments the present is characterized as a period of significant change. We are painfully learning that to live in the past is one thing, but to assume a role of leadership is quite another. The conditions which will exist throughout most of this ten year period are precisely the ones, which, in the past under different formats and circumstances resulted in supporting "gimmicks" or other "easy answer" solutions to difficult problems. These reactions in the past have compelled the teaching profession to retreat and lower standards. It appears that, on one hand are violent criticisms and outworn patterns and on the other unprecedented needs and responsibilities to America's schools for improving professional preparation.

Common conversation listened to the past year included "the tidal wave of students," "more buildings and larger appropriations," "recruitment of retired military officers," "release of research scientists by industry to do a year of academic slumming," "a progressive erosion of education quality will result," "emergency and provisional certificates," "television to replace the competent teachers," "part time schooling on double sessions," "the use of teacher aides and other nondescript helpers," "college enrollments will double in the next ten years," "the use of advanced students in each class," and finally, "to draft young women for a two year period -- six months of preparation and 18 months of teaching." Your replies to such quips would be most interesting. Many have a carefree assurance of the destiny of professional preparation while others have grown restive, apprehensive, suspicious, and fractious. The casual, trusting attitude has given way to profound uneasiness.

In any case, we need to recognize that intelligent answers will come more readily through a deliberate and planned attack on the problem. Each problem can prove to be an opportunity to raise the level of quality and achievement. A number of significant developments have taken place which should serve us well in our deliberations. A compendium of snapshots of these developments is attempted, ideas are treated briefly, and implementation is not detailed. An imaginative group of this kind may wish to consider them.

Professional Standards Movement. The primary objective of this movement is to make teaching a pre-eminent profession. To do this the attitude of the people must be changed to develop a climate of public opinion favorable to teaching. According to Corey,[1] . . . the development and maintenance of adequate standards in the identified aspects of teacher service is the means by which progress can most rapidly be made toward the establishment of teaching as a stabilized pre-eminent profession." Five areas have emerged in which professional standards are needed: "Professional Ethics," "Professional Education," "Professional Service," "Professional Community Relations," and "Professional Welfare."[2]

This movement since 1955 has been paying off and only the highest standards should be set for the teachers of tomorrow. The question rests essentially with the profession itself. Do you wish to belong and support a profession which lowers standards as the easy, make-shift, and quick answer or do you wish to follow the longer, harder responsibility of continuing to raise standards?

The High-Standards Approach to Teacher Supply. This concept contends that the only long-range, effective solution to supplying and keeping qualified teachers is the high-standards approach. It has been learned that quality attracts quality and that the true greatness of teacher education must rest upon the pillars of quality and quantity. Such an approach guarantees the achievements of long-term stability of the teaching profession even in a period of a shortage of teachers. There is no alternative for the evidence indicates that through this approach: more young people go into teaching; there is an improvement in the corps of teachers in the states with higher standards; and a migration of teachers away from the states with low standards.

Roles or Functions of Teachers Have Been Defined. One of the most important recent developments has been the study of the California Council on Teacher Education. The Council was seeking a definition of the desirable product of a program of teacher education. In so doing it was necessary to identify the roles of a teacher in our public schools.

These roles are: (1) A Director of Learning, (2) A Counselor and Guidance Worker, (3) A Mediator of the Culture, (4) A Member of the

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[1] Arthur Corey, "The Professional Standards Movement in Education: How Teaching is Becoming a Profession," Journal of Teacher Education, 6:226, September 1955.

[2] Arthur Corey, op. cit., p. 227.

School Community, (5) A Liaison Between School and Community, and (6) A Member of the Profession.[3] In this analysis a concern is directed to what the teacher must be able to do, not how he is to do it. Requirements in each role will vary with the needs of each community. Illustrations of the kinds of competencies under each role have been developed to serve as guides or a frame of reference for local groups.[4] The important concept in this analysis is that professional expertness cannot be described through a job analysis for nothing is more fatal than blind imitation of a model. Professional competence must be adaptable to a variety of situations, conditions or personalities.

This definition has been accepted nationally and is being used particularly in California. In the past, most of the study and research was directed to the teacher as a director of learning and little attention was given to the other roles he is expected to perform. These roles are now being used as a guide in teacher education programs, for in-service education program direction, for improving the professional status of teachers, for direction of personnel directors in high schools and colleges for guidance in accrediting and certification programs, and for further research in redirecting teacher education.

An Emphasis Upon Competencies. To carry out effectively the important roles of a teacher certain competencies are now being identified and emphasized in professional curricula. "A competency is defined as a skill, insight, understanding, qualification, fitness, or ability which is used to meet a life situation."[5] This approach to professional preparation is aimed at developing competencies which provide the individual with intelligent ways of meeting problems in a teaching situation. Hence, we are moving away from a set pattern of courses to a focus on product in relation to what the student can do. This approach allocates responsibility for developing competencies in areas of experiences and to ascertain the level of behavior to which the competence is to be developed.

A great deal of research is needed in this area especially in the professions of health education, physical education and recreation. Persistent problems met by teachers and recreation leaders will have to be identified in relation to their roles or functions in a leadership position. Following this, the competencies needed to most effectively deal with the problem will have to be identified and then experiences planned to develop the competencies. The form to follow is suggested:

Role of the Teacher: Persistent Problems to be met
Competencies--Experience--Resource Areas list
list list list

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[3] Lucian B. Kinney, *Measure of a Good Teacher*, San Francisco, California Teachers Association, 1952. pp. 9-10.

[4] *Teacher Competence*, Its Nature and Scope, San Francisco, California Teachers Association, 1957, pp. 31-41.

[5] Raymond A. Snyder and Harry A. Scott, *Professional Preparation in Health, Physical Education and Recreation*, New York, McGraw-Hill Book Company, 1954. p. 115.

All professional personnel in schools and colleges and the lay public should share in this research and experimentation. A dynamic program of professional preparation can be developed which would change in relation to the changing needs of society.

A Greater Emphasis on Research in Professional Preparation. The next decade presents a significant challenge for educational research generally, and particularly for professional preparation. While the art of teaching and leadership is of ancient lineage, the science of teaching and leadership in our fields had its inauguration with the turn of the century. Education, as one of the social sciences, has had only a brief span for the development of a research base. New methods of research are being developed which are more nearly suited to the complex activities of professional preparation.

Obviously, any research done in education is revelant for teacher education. The relationship has been recognized by Monroe in his volume, Teaching-Learning Theory and Teacher Education 1890 to 1950.[6] In teacher education there has been considerable research completed by associations, foundations, and government bodies, as well as research completed by individuals, groups, and commissions leading to theses, dissertations, monographs, journal articles and occassional books. Research in teacher education is gradually shifting from surveys of current practices to research which deals with fundamental problems and issues and which evaluates principles in an operational setting and which recognizes and is explicit about the assumptions which are made, and that reaches conclusions which have generalized validity. Five general research areas have been identified by the A.A.C.T.E.:[7]

1. Scope, Function, and Objectives of Teacher Education.
2. Organization and Administration of Teacher Education.
3. Student Personnel Programs and Services in Teacher Education.
4. Curriculum and Instruction, Including Laboratory Experiences.
5. Relationships of Teacher Education Institutions With Other Professional and Public Groups and Agencies.

Research is not reserved for only select groups and should be looked upon as a professional duty of all teachers and recreation leaders. ''Action research in education is research undertaken by practitioners in order that they may improve their practice, the people who actually teach children or supervise teachers or administrators of school systems attempt to solve their practical problems by using methods of science."[8] Such research is urgently needed to investigate further the roles of the teachers and the competencies needed to perform the roles effectively in our schools. Such research will sharpen our focus in professional preparation.

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[6] Walter S. Monroe, Teaching-Learning, Theory, and Teacher Education 1890 to 1950, Urbana, University of Illinois Press, 1952. 426 pp.

[7] American Association of Colleges for Teacher Education, Needed Research in Teacher Education, Oneonta, New York, The Association, 1954. 62 pp.

Professional Preparation and International Affairs. Since the close of World War II, our government has become increasingly involved in the affairs of other countries. This is a logical outcome of the leadership of the free world which has been thrust upon this country. All kinds of opportunities are now available for inter-university contracts and for exchange services.

The most important role of teacher education in the United States is the education of our own teachers to appreciate the validity of other cultures, while retaining the right perspective about their own. We need to develop teachers who can equip their students with deep and broad understandings of other people. In addition we must provide teachers, consultants and others to assist in bringing about an educational renaissance in other countries and in educating their leaders of the inherent values of the democratic way of life.

What Do They Learn About Education?[9] This publication is devoted to the practices used in public schools to teach students about educational provisions and issues. What people in a community really know about schools, the power of education, and what a good school is trying to do in health, physical education and recreation, is largely accidental and based upon incidental knowledge. One section of the proposed course of study is the health and physical development of individuals and another area deemed important is the recruitment and preparation of teachers. Here is a significant opportunity to raise the prestige of our professions through making early and better interpretations.

Developments in Accreditation. One of the most promising developments in the professional standards movement was the forming of the National Council for Accreditation of Teacher Education which began formal accrediting activities on July 1, 1954. The Council is an autonomous, voluntary accrediting body devoted exclusively to the evaluation and accreditation of teacher education programs. It is recognized by the National Commission on Accrediting as the only national accrediting body for the field of teacher education. Its jurisdiction includes the preparation of teachers for the elementary and secondary schools and for all grades and subject, including the preparation of school administrators and other specialists for these levels in both undergraduate and graduate preparation.

Such a Council can stimulate institutional self-evaluation and provide for a wide interchange of concepts and experience among the representatives. In addition, it can assure the quality of teacher education programs to all colleges, universities, organizations, agencies, and individuals interested in the product. The Council's activities are both institutionally oriented and socially oriented. Representation of all parts of the profession and of the public is assured. Teaching is the last of the great professions to achieve an effective accrediting agency, broadly representative of the profession and dedicated to improving the quality of professional services provided the public.

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[8] Stephen M. Corey, "Action Research to Improve School Practices," Journal of Educational Research, 47:375, January 1954.

[9] Metropolitan School Study Council, What Do They Learn - About Education? New York, the Institute of Administrative Research, 1955. 33 pp.

Developments in Certification. Certification standards and practices are being studied throughout the country. It has been learned that certification to teach should place increasing responsibility at the local level where the teacher is known as a person. It is now recognized that the responsibility to determine competence is shared by four groups: (1) the state certification authorities, (2) the accrediting agencies, (3) the preparing institutions, and (4) the local school administrators who select, employ, assign, retain and promote the teachers. Hence, certification responsibilities are being delineated and selection practices refined.

The standards are higher today than any which the American people have universally demanded in the past. These and even higher standards are desirable, but at the same time the shortage of teachers must not be allowed. This dilemma should not cause confusion and a movement away from the high standards approach. By following the above plan decisions can be made in an orderly fashion with consideration of all the problems rather than making decisions piecemeal in response to fragmentary and shifting considerations. It has been indicated, "In many parts of the country, and over the Nation as a whole, the corps of teachers is being improved, the quality of teaching service is being increased, in spite of the tremendous demands imposed by higher enrollments."[10]

The Uses of Television in Teacher Education. The use of television in our educational program is still in its infancy. Yet it is one of the most powerful potential instruments in the education field including teacher education. As with any new instrument in education teachers must be educated for its most effective use. On April 14, 1952, the Federal Communications Commission announced that 242 channels had been allocated for educational purposes. Since 1952 twelve educational television stations have gone on the air. The Joint Committee on Educational Television lists 284 colleges and universities involved in educational television activities. More than 300 public school systems are active in preparing and presenting educational program via television. Group convictions, guiding principles and action recommendations are outlined for the decade ahead.[11] Our professions are involved in this program and we should be ready to make unique contributions.

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[10] National Commission on Teacher Education and Professional Standards, op. cit., p. 4.

[11] Ibid., The Uses of Television in Teacher Education, Washington, D.C., The Commission, 1955. pp. 25-27.

Recruitment and Selection Techniques Refined. At the moment some deceptively easy answers are being offered to remedy the shortage of teachers. The majority of educators, however, are giving special study to the problem and stake their chances on getting enough capable young people. We can recruit and prepare enough young people for our schools. No arbitrary selection will be necessary and the task is important enough to make the necessary efforts. To do this, it is recognized that there is no single approach to assure an adequate flow of qualified teachers. There must be many approaches. The assumption that the problem can be solved by nation-wide drum-beating programs to induce young people to go into teaching will not suffice. Neither will indiscriminate recruiting programs designed as one newspaper editorial put it, ''to knock on any door'' solve the problem. Three broad approaches have been identified: (1) Make provisions to assure the holding of every possible one of the qualified teachers now in service, (2) Make provisions to assure an adequate flow of capable young people into teacher education, and (3) A short term plan which organizes and conducts a teacher-reserve mobilization campaign. There are many fine skilled teachers who have left teaching who would be willing to return after some refresher work. A screening plan should be set up in each state by which an inventory of these persons can be derived and furnished the state certification authorities. The key to the success of such a plan is discriminating screening and further professional work.

To carry out the above plan of recruitment and selection three essentials are paramount. In the first place the prestige and status of teaching must be made comparable to the other learned professions in the minds of the people, the teachers, and the capable young students. The high-standards approach will assist greatly in this aspect. Secondly, the salary scale must be high enough and flexible to compete with other fields. It is believed that the American people will pay and will want to pay for a high quality of education, once they understand the problem. Many activities are now in progress to bring about this understanding. Thirdly, the teacher's position must be so well defined in relation to the roles played and the competencies needed to effectively challenge the interest and ability of capable students.

Junior College - State College - University Cooperation. Another development of outstanding merit is the various committees working to bring cooperation between the junior colleges, state colleges and the universities in relation to professional preparation.

The future is bright with possibilities. The junior colleges and community colleges are now established institutions and are here to stay. A genuine approach of cooperation has developed and promises many favorable results. A professional education program is being developed in these colleges and universities which will be consistent, continuous and effective in developing the competent teacher and recreation leader.

Where Do We Go From Here. With these new developments and others in mind it is evident that the next ten years are the crucial years.

This year terminates ten years of national conferences in our fields on professional preparation. Advances on the national level, however, depend upon parallel efforts at the state and local levels. If we do not come up with the right answers on the local level at this time our dream of putting teaching among the prestige callings in American life will fade as a rainbow fades in the heat of the sun.

During these crucial years a framework of professional preparation can be developed, based upon the values and assumptions upon which our profession and the public alike will agree. Standards should be set and any institution not able to meet the standards should be refused accreditation and certification rights. In some places, professional preparation is a bargain basement affair and is on sale rather cheaply. The whole profession is involved and should be mobilized to support high standards for accrediting and certification. The time is here when our professions should move up to the podia in each state and declare once and for all a stand on substandard preparation. Professional preparation is basically the profession's responsibility and with proper organization this responsibility can be adequately discharged.

Professional preparation cannot afford the historical luxury of lagging behind the times. With this vast insight already developed we need to blueprint our vision and make a frontal attack on the problem rather than the flank movement we have used in the past. In making our blueprint we should be sure that it will mirror not so much what we are doing but what we could be doing. It is now possible to draw the conceptualized dimensions of the ideal teacher. By uniting and making active all members of our profession, by mobilizing all our institutional resources, and by a directed attack through professional associations of this kind the task of making teaching a pre-eminent profession can be accomplished. Genuinely experimental programs, initiated and conducted under proper safeguards, should be encouraged. Particular attention should be given to continuous examination of programs in the light of changing social, cultural, and scientific conditions, and in the light of research findings in the natural and behaviorial sciences.

We must never forget that the vital principle to follow in planning for tomorrow is the "acceptance principle of the American People." In following this principle we must focus our efforts in dealing with the publics on one basic criterion which is that we serve all of the children of all of the people. This becomes the most compelling force for us to develop standards, to recruit able young people into our professions, to prepare competent teachers and leaders, and to provide the best service for our children and for our society. Tawney, in his memorable book, Religion and the Rise of Capitalism, makes this observation: "There is a magic mirror in which each order and organ of society, as the consciousness of its character and destiny dawns upon it, looks for a moment before the dust of conflict or the glamour of success obscures its vision. In that glass it sees its own lineaments reflected with ravishing allurements; for what it sees is not what it is, but what in the eyes of mankind and its own heart it would be." There is no limit to what can be accomplished if we work together and plan in relation to our professional goals.

THE UNDERGRADUATE PREPARATION OF PHYSICAL EDUCATION MAJORS FOR COMMUNITY ACTIVITIES AND SERVICES

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The undergraduate preparation of physical education majors for community activities and services is too frequently thought of as a natural by-product of physical education preparation for organized class instruction, rather than as a subject deserving serious study and planning in its own right. As a consequence less attention has been given to it in the teacher education program than to the more obvious aspects of physical education, and the usual physical education teacher enters the community with little awareness of the problems of personal relations that he will face and the means by which these can best be solved. He is asked to establish good relations with the community, but he is not given the necessary tools to perform the task. That this is the case is a source of growing concern to people in the field of physical education who are convinced that physical education if properly understood would secure its rightful place both in the school program and in the rest of the community.

The primary purpose of this paper is to discuss some means by which the undergraduate preparing for the profession of physical education may be ready when he begins his life work to make the fullest contribution both to his community and to his profession. As a necessary preliminary to this discussion, however, I should like first to point out the activities and services in the community most commonly undertaken by physical education teachers and indicate the nature of the contribution that physical education can make to the life of a community.

The community activities and services which the physical education teacher generally enters are those where a knowledge of sports and games is helpful. In most communities, he would engage in some of the following: The Red Cross; Y.M.C.A.; Y.W.C.A.; Civilian Defense; Church activities; Youth organizations, as for example, Boy Scouts, Girl Scouts, Settlement House and Athletic Clubs, Police Athletic Leagues, community recreation and entertainment programs; and social organizations like the Masons, the Kiwanas, sorority and fraternity groups. He might also work with Little Leagues and he might have numerous speaking engagements. Sometimes teachers of physical education are members of school boards, and they may participate in fund-raising campaigns, local political campaigns, and other more specialized community organizations. Still others have administrative duties. Even a cursory examination reveals a bewildering variety of potential community activities, and it is clear that the teacher of physical education will make many contacts with people outside his own realm. Therefore, he must be very selective and enter only those community activities where he can make a real contribution.

While people in physical education are well-aware of the fact that the field of physical education extends far beyond the area of the physiological, laymen are not likely to be so aware of its values. It is not amiss to remind ourselves briefly of these values before discussing how a sense of these can best be communicated to the community. First of all, physical education provides experiences which help children, youth and adults prepare to take their place in an industrialized society, for through a broad program the individual is aided in the formation of his character and personality. Through experience as a participant, a leader, and a member of a team and competitive unit, he learns judgment, give and take in competition, and emotional stability. In short, along with its contributions to physical fitness, a well developed program of physical education has lasting effects upon participants by teaching them skills which aid them at home and at work, by enabling them to accept better their responsibilities, and by providing them with an interest in, and an aptitude for, games, sports, and rhythmic activities that will delight them in their leisure hours in later life.

With the rapid advance of physical education in the twentieth century, has come an urgent need for a clear understanding of the unique role a well-balanced program of physical education may play in the growth and development of an individual. Whether the community has a misunderstanding or not depends upon the physical education teacher as he presents his program to his students, and as he interprets physical education to the layman in the community. For through community activities and services, he has an excellent opportunity to interpret physical education to those who are most unaware of its values. For the physical education teacher is well qualified to be a leader in community sports and games programs by virtue of his specialized education.

The results of physical education programs are placed on public display whenever adults in the community engage in sports and games; the results of past physical education programs — whether they were good or bad — are placed right on the line for general inspection. This presents a public relations opportunity of tremendous extent. And the physical education teacher should not lose the opportunity to demonstrate that he is engaged in one of the most worthwhile endeavors in the life of the community; for he is instrumental in the total development of children and youth — a service which cannot be evaluated in monetary terms.

The undergraduate preparation of physical education majors for community activities has a number of weaknesses that will concern us during the remainder of this paper. One major weakness springs from the failure of people within the field to decide among themselves the nature of physical education and the reasons why it should be required in the schools. Public disagreement on these points and the failure to agree and then close ranks have caused harm to the profession with sometimes harmful results. For example, in Houston, Texas, the required program is under fire, and with the decision by the School Board a few days ago to make the twelfth year elective the way has been opened to destroy the required program. If the people in the profession cannot agree among themselves, how can they expect undergraduates to interpret physical education to the public? This, then, is a first essential; that the people in the field should decide more exactly just what physical education can do for the American people, and it would not do any harm to be somewhat more modest on this score than some members of the profession have been in the past. It is imperative that undergraduate and graduate schools close ranks, decide just what physical education can contribute to the youth of America, and set out at once to present a well-constructed program calculated to fulfill realistic goals.

Another weakness springs from the fact that the average physical education major is too often a specialist in his own field without an accompanying knowledge of other areas of education. It would be easy to suggest that the physical education major must be basically prepared in the humanities, social studies, and the sciences while acquiring the special preparation set by the standards of his chosen field, but we are not dealing with Utopian situations, and it would be well to keep our aims realistic. Physical education majors usually spend only four years as an undergraduate and an education for a life time cannot be completed in this short time. But he must attain the essentials and be stimulated toward reashing greater heights in the realm of general knowledge as he moves along in his professional career.

One of the educational essentials for the physical education teacher is to take his place as a well educated member of the community. He must be able to speak effectively with people from a great variety of professions when the conversation is not centered upon sports and games. This then brings up two major weaknesses usually found in the undergraduate preparation of physical education teachers which must be corrected before maximum effectiveness can be achieved when engaging in community activities and services. First, is the inability to speak effectively and coherently; and secondly, the inability to become reasonably well informed about significant issues and problems on the local, national and international scene.

The failure to grasp the essentials of English grammar, by such a large number of physical education majors, has become the butt of many a joke and not without considerable justification. For the examination of the academic records of all college students usually shows the physical education major on or near the lowest academic level in English grammar and usage and other courses considered basic to the education of all students. Even though sports and games is a universal language, the physical education teacher must be prepared to engage effectively in many other topics of conversation with community groups. The undergraduate programs of physical education must have greater emphasis placed on English and public speaking. Watered down courses for physical education majors must be eliminated wherever they exist. We must see that standards are set and not compromised, especially in the basic courses which physical education majors take toward the attainment of educational goals.

The undergraduate preparation of physical education teachers must include an effective level of education for an understanding of the society in which one lives. This educational background is essential for the physical education teacher who engages in community activities and services; and requires among other things a careful perusal of current publications such as newspapers, magazines, and books; and a careful selection of radio and television programs.

As to knowledge gained from newspapers, the physical education teacher must realize that most local newspapers present a very carefully controlled sequence of news on many very significant issues, the physical education teachers undergraduate program must help him gain a true perspective on basic issues effecting the society around him. This is essential whether it be local, state or national politics, problems of business and industry, issues in education, labor relations and agriculture, or problems peculiar to the geographic area where the person is located. The college undergraduate program must help the physical education teacher become aware of the reputation of such fine newspapers as The New York Times, Christian Science Monitor, St. Louis Post Dispatch, and The Wall Street Journal all of which receive top national ranking year after year.

The same attention must be placed on the physical education teachers' awareness of magazines of distinction. A knowledge of the leading magazines that actually make a major contribution toward raising a families intellectural level and academic interests must be thoroughly understood. There must be a realization that such magazines as Harpers, Atlantic Monthly, Saturday Review of Literature, Fortune, the magazine section of The New York Sunday Times, and U. S. News and World Report have a very signigicant role to play in keeping the American people informed. Carefully organized reading habits must be cultivated in the newspapers, magazine, and book field.

Television must come in for the same careful analysis. This medium is relatively new in the home and the process of selectivity of programs has scarsely graced the dials. In the home one too frequently finds the television set on for hours evening after evening with no rewards of distinction forthcoming because of inability of the family to select programs wisely. One may reap many educational rewards from television if one selects wisely in the area of public affairs, sports events, and the many fine music, art, literature, and drama programs.

One of the major objectives of a university undergraduate program is to prepare a student to take his place in a community; and an awareness of community activities and service must be a part of this program. A university is actually a community of people perusing knowledge and truth for the sake of more perfectly adjusting themselves to society. Within the boundary of undergraduate preparation, there must be vocational, professional, and cultural responsibility placed on each student. For the physical education major there must be specialized education in physical education and professional courses that lead to a sound overall educational background.

Along with the academic pursuits must come a responsibility within each student for cultural development. The realization that a university has physical buildings and surroundings where students gather to socialize, form student government organizations, and engage in recreational activity is an indication that academic development alone is not sufficient to provide an education. Undergraduate education must include cultivation of aesthetic senses, ideals and purposes, and an understanding of the art of living together. There must be a stimulation of self-expression including an appreciation of music, art, literature, and beauty of form and movement. Self-expression should include the reading of research papers in student organizations. Students should be urged to meet in small groups with outstanding men and women of the community with thom they may discuss topics of general interest and learn more about the communities which they will enter.

Former president Elliot of Harvard University considers one of the most important cultural influences in a university the close contact between the teacher and student providing the teacher is a cultured person. Let us assume that most college teachers have discovered the true purpose of a university and that they are caught in the spirit of enquiry and an appreciation of values. The really fine teacher has a desire and drive that goes far beyond the subject he teaches for there must be a passion for knowledge, culture, and values which must be passed on from the teacher to his students.

The system prevailing in most colleges shows that the only students who usually have any real contact with the teaching staff outside the lecture room are the superior and the very poor students. The faculty tends to encourage and stimulate those students with first-rate ability while the poor students are forced to the teachers attention for additional instruction. Therefore, the vast majority of students are unknown to their teachers in a personal sense and pass through courses with only superficial contact with their teachers.

The college residence must be made a distinct feature of undergraduate preparation for it has a direct bearing on community activities and services. There must be an atmosphere and tradition with senior members setting the tone. The residence is a community and must have a life of its own with student societies and organizations governed by the students themselves. There must be a cross section of the student body who — despite occasional problems — will learn how to live graciously, govern themselves wisely, and learn how to make the best use of leisure time.

In closing I should like to deal with the query that — I suspect — is uppermost in your minds. Namely, that the program I have suggested is too ambitious to be accomplished in four years. I think the best answer on this point is to quote "The Price of Success" as presented by the president of General Electric a few years ago. It appeared in U. S. News and World Report and reads as follows:

> "What is it that brings one man success in life, and mediocrity or failure to another. It cannot be mental capacity for there is not the difference in our mentalities that is indicated by the difference in performance. The answer is, some men succeed because they cheerfully pay the price of success while others, though they claim ambition and a desire to succeed, are unwilling to pay that price."

The price of success is:

To use all your courage to force yourself to concentrate on the problems at hand; to think of it deeply and constantly; to study it from all angles; and to plan ahead.

To have a high and sustained determination to achieve what you plan to accomplish, not only when conditions are favorable to its accomplishment but in spite of all adverse circumstances which may arise.

To refuse to believe that there are any circumstances sufficiently strong to defeat you in the accomplishment of your purpose.

Hard — of course — thats why so many men never reach for success, yield instead to the siren call of the rut and remain on the beaten paths that are for beaten men. Nothing of note has ever been achieved without constant endeavor, some pain and ceaseless application of the lash of ambition. Thats the price of success. Every man should ask himself: Am I willing to endure the pain of this struggle for the rewards and the glory that go with achievement? Or shall I accept the uneasy and inadequate contentment that comes with mediocrity?

MINIMUM ACTIVITIES COMPETENCIES NEEDED BY MEN PHYSICAL EDUCATION STUDENTS IN CALIFORNIA

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Background of the Study

In March, 1956 at the Teacher Education Workshop in Sacramento, teachers and administrators from California colleges and junior colleges recommended that the Californai Association for Health, Physical Education and Recreation conduct a study to determine the minimum activities competencies for men physical education major students at the lower division level. Such a study had previous been accomplished for women's activities.[1] The Chairman of Professional Education and Research were designated by the CAHPER Executive Committee to pursue this study.

A survey of California teacher education institutions of Physical Education indicated that 50 percent to 60 percent of the upper division major students were transfers from the 60 plus junior colleges in California. Each four-year institution had its own standards and requirements for lower division activities competencies. Because of this situation, it was impossible for the junior college faculties to prepare adequately their students for transfer to the many four-year institutions. The participants at the Sacramento Workshop deemed it imperative that the four-year institutions agree upon minimum competencies; and that the junior college faculties prepare their Physical Education major students sufficiently in quantity and quality that the four-year faculties would accept the junior college instruction as being equal. If the junior college transfer student was to make normal educational progress the principle of equivalency had to operate.

Purpose of the Study

The purpose of this study was to determine the minimum activities competencies needed by lower division men completing any or all of the activity areas listed in the California Special Secondary Credential in Physical Education.

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[1] A Study of the Expected Competencies for Women Physical Education Majors at the End of the Fourteenth Grade. A committee representing Southern California Junior Colleges, Colleges and Universities. (December, 1949)

The secondary purpose of this study was to determine the competencies needed by men major students of Physical Education in relation to self, to others and to the profession.

This study did not propose to limit the number of skills offered in any institution, nor did it attempt to limit the level of competency in any activity. Rather, the study was based on this statement: If an activity was offered in the lower division, either in a lower division major class or in a general service activity class, the listed minimum competencies would be included.

Procedure

The Sacramento Workshop group recognized the value of the women's competency study which took three years to complete and involved a large number of professional persons. This study was recommended as a point of departure. The women's study identified competencies in relation to self, to others and to the profession. Although the men's study was more specifically concerned with activities competencies, the broader personal and professional competencies were also included to strengthen the profession's stand concerning the type of major student desired.

The skills indicated in the California Special Secondary Credential in Physical Education were listed.[2] Under each skill the selected competencies as determined by the women's study were listed. For those areas not included in the women's study (for example, football and gymnastics), competencies were listed as selected by small committees of recognized experts in those activities.

Copies were mailed to each men's junior college and four-year college Physical Education faculty in California. Each was asked to agree with, and/or delete the skills, understandings, and knowledge for each activity.

Returns were received from 34 junior colleges and 21 four-year schools. This represented a return of 55 percent for the former and 88 percent of the four-year institutions. The large return of the four-year schools was particularly significant because it is this group that is held responsible for the competence of all California credential applicants in Physical Education.

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[2] California State Department of Education, Division of State Colleges and Teacher Education, Revised Requirements for the Special Secondary Credential in Physical Education and Recommended Program of Preparation for Fulfillment of these Requirements. From California Administrative Code, Title 5, Education. Pamphlet, Sacramento: State Department of Education, November 1953, pp. 4,5.

The results were tabulated, and recommendations were made upon the basis of a minimum of 75 percent agreement; however, in 95 percent of the items, there was at least 96 percent or more agreement.

There were two areas of minor disagreement — dance and gymnastics. In general, it was indicated that the competency level was optimum rather than minimum. Subcommittees, composed of teachers in these areas from both junior colleges and four-year institutions and from both northern and southern California were formed. Each member revised the list of competencies. Agreement was substantial; slight differences were resolved; and the new recommended competencies for dance and gymnastics were accepted.

Results of the Study

The following competencies were recommended by the men physical educators of California:

I. EXPECTED COMPETENCIES IN RELATION TO SELF

A. Health

1. Knows his physical capacities and limitations, the value of rest and relaxation, and uses energy wisely most of the time.
2. Takes responsibility for yearly physical examinations.
3. Consistently works toward correction of physical defects.
4. Follows fundamental principles of good diet.
5. Keeps weight within normal limits.
6. Has positive attitude toward health and safety.
7. Has begun to acquire knowledge of the functioning of the human organism.
8. Is acquainted with campus and community health services and utilizes them as needed.

B. Character and Personality

1. Possesses a sense of personal integrity.
2. Is aware of own strengths and limitations and works toward self-improvement.
3. Shows evidence of purpose and accepts responsibility for own decisions and actions.
4. Attempts to adjust rationally to changing situations.
5. Analyzes and attacks problems constructively.
6. Maintains normal range of self control.
7. Approaches life with a positive outlook.

    8. Shows initiative.
    9. Tries to give of his best in everything he does.
    10. Expresses his ideas correctly and clearly in speaking and in writing.
    11. Possesses a sense of humor.
    12. Is eager to learn.
    13. Is punctual.
    14. Accepts and carries out responsibility.
    15. Has a variety of interests.
    16. Works efficiently alone.
    17. Possesses tact and courtesy.
    18. Shows respect at all times.

  C. Appearance
    1. Understands own body structure and moves efficiently.
    2. Dresses suitable for all occasions.
    3. Is well-groomed.
    4. Maintains a good posture.

II. IN RELATION TO OTHERS
  A. Interest in others
    1. Shows appreciation of the worth of people with racial, ideological, physical and mental differences.
    2. Recognizes that behavior is influenced by many factors — psychological, sociological, and physiological.
    3. Shows sincere interest in people of all ages, resulting in friendly, considerate, helpful attitudes.
    4. Enjoys working and playing with others of either sex.
    5. Contributes to the enjoyment of others.
    6. Is at ease in varied social situations.
    7. Tries to evaluate the effect of own personality and behavior on others.
    8. Is beginning to understand the psychology of human behavior.

  B. Working with others
    1. Shows a beginning understanding of the principles of democratic action as evidenced by effective participation as a group member.
    2. Appreciates the group as an environment which provides opportunity for individual growth, contribution and recognition.
    3. Is cooperative; motivates cooperative action on the part of others in some situations.
    4. Uses group thinking as a problem-solving method.
    5. Is respectful of view of others.

III. IN RELATION TO THE PROFESSION
  A. Knowledge, attitudes, philosophy
    1. Understands the requirements and opportunities of the profession and evaluates himself as a potential leader.

2. Understands the scope of physical education and its place in education.
3. Recognizes the value of liberal education.
4. Knows the philosophy of participation in athletics adhered to by professional physical educators.
5. Is beginning to relate biological sciences to understanding of human growth and development.
6. Has knowledge of current events and issues.
7. Realizes the value of professional organizations.
8. Acquires membership in professional organizations and actively participates in them.

IV. EXPECTED COMPETENCIES IN RELATION TO KNOWLEDGE, SKILLS AND PRACTICES

A. Is skilled in a wide variety of physical education activities.

B. Possesses an appreciation of the activity for leisure time and aesthetic values.

C. In relation to each activity listed below the student possesses a knowledge of:
   1. Rules and scoring procedures.
   2. Techniques of officiating activity.
   3. Health and safety precautions.
   4. Types of tournaments suitable and handicapping.
   5. Care of equipment and supplies.
   6. Terminology and nomenclature.
   7. Etiquette of player and spectator.
   8. Proper uniform.
   9. Ways of modifying activity to existing facilities and participants.
   10. Character of outstanding performance.
   11. Techniques of analysis and evaluation of performance.

D. Is able to analyze, demonstrate and explain basic skills listed as follows:

GAMES AND RELAYS

A. Games
   1. Table tennis
   2. Shuffleboard
   3. Handball
   4. Deck tennis
   5. Paddle tennis
   6. Tetherball

B. Relays
   1. Relays requiring equipment
   2. Relays not requiring equipment.

GYMNASTICS

A. Basic Skills
  1. Rope climb
     a. Foot and leg lock.
     b. Leg assisted climb and descent 20 feet.
     c. Hand over hand climb from standing start -- (to 12 foot level).
     d. Sitting start -- hand over hand climb, 6 strokes (not set level).
     e. Sitting start -- hand over hand climb -- 20 feet, 10 seconds.

  2. Free Exercise
     a. Headstand.
     b. Cartwheel.
     c. Scale balances (each leg).
     d. Momentary handstand -- roll to sit.
     e. Squat through from fron to rear support.

  3. Horizontal Bar
     a. Backward pull-over mount.
     b. Backward hip circle.
     c. Forward hip circle.
     d. Drop sit mount.
     e. Swinging kip to support.

  4. Side Horse
     a. Leg overs (single leg one-half circle).
     b. Single rear vault from feint.
     c. High "V" swings (R. leg one-half circle L, swing both legs to high "V" position left and return, repeat opposite side).
     d. Elementary travel.
     e. Single scissors over end of horse. (R and L)

  5. Parallel Bars
     a. Shoulder stand -- (inverted upper arm balance).
     b. High front vault -- dismount.
     c. Upper arm kip.
     d. Back uprise from upper arm swing.
     e. Kip (inverted jacknife hand swing at end facing in).

  6. Vaulting
     a. Squat vault (side horse).
     b. Straddle vault (side horse).
     c. Running squat vault (buck).
     d. Running straddle vault (longhorse).
     e. Running squat vault (longhorse).

  7. Rings (still)
     a. Slow skin to cat and return (straight legs).

  - b. Backward straddle cut-off from chinned-hand swing.
  - c. Forward muscle roll from inverted jack (false grip) to support.
  - d. Dislocate (rings to standing reach height).
  - e. Forward double cut-off.

8. Tumbling
   - a. Dive and roll.
   - b. Backward roll to handstand snap down.
   - c. Run, hop step, round off.
   - d. Headspring.
   - e. Handspring.

9. Trampoline
   - a. Demonstrate four fundamental landings (sit, hands and knees, back and front).
   - b. Sit – one-half twist – sit (swivel hips).
   - c. Half turntable.
   - d. Forward three-quarter somersault (piked) to sit.
   - e. Forward somersault (tucked) to feet.

AQUATICS

A. Basic Skills
   1. Strokes – arms and legs
      - a. elementary back stroke
      - b. back crawl
      - c. crawl
      - d. breast stroke
   2. Tread water
   3. Float
   4. Jump into deep water
   5. Plain front dive into deep water
   6. Swim 100 yards any stroke or swim five minutes using any stroke

B. Knowledge of and ability to perform water safety skills equal to swimming proficiency.
   1. Personal safety

C. Knowledge of events to make up swim meet

DANCE

A. Basic movements: (can demonstrate with style and accurate timing)
   1. Walk, run, leap, hop, jump, skip, slide, gallop; pivot, shuffle, two-step, buzz-step; polka, schottische, waltz, mazurka; fox-trot, swing (as New Yorker, Lindy, Jitterbug and other current forms) tango, rhumba, samba, mambo, cha-cha-cha.

  2. Square dance:
     swing, allemande left, grand right and left, docey-doe, promenade, ladies chain, right and left through, sashay.
  3. Can call several simple square dances with introduction, body and ending (as singing calls, patter calls).

B. Basic positions — formations — directions.
  1. open, closed, side-reverse, shoulder waist, varsouvianne, promenade, skater's waltz (cross-hands)
  2. line, circle, square, longways set, columns
  3. clockwise, counter-clockwise, turn left, turn right.

C. Interpretation
  1. Can read, understand, and learn from various written descriptions of dances.
  2. Can read and understand various meters and rhythm patterns common to basic dances.

D. General knowledge
  1. Knows a variety of specific dances — folk, square, mixers, social.
  2. knows source material and background of dance.

INDIVIDUAL AND DUAL SPORTS

ARCHERY

A. Basic Skills
  1. Stance
  2. Knocking
  3. Draw
  4. Hold
  5. Aim
  6. Release
  7. Follow through

B. Knowledge
  1. Trajectory, techniques of sighting
  2. Point of aim
  3. Effect of release motions on arrow flight
  4. Effect of posture problems on achievement.

TENNIS

A. Basic Skills
  1. Forehand drive
  2. Backhand drive
  3. Serve
  4. Volley
  5. Lob
  6. Overhead smash

B. Techniques and strategy of play
  1. Server (singles and doubles)
  2. Type of serve to use
    a. placement
    b. position immediately following serve.
  3. Receiver (singles and doubles)
    a. position to receive first serve, second.
    b. position immediately following serve return
    c. Placement of return
  4. Court coverage
    a. singles
    b. doubles
      (1) up and back
      (2) double net

BASKETBALL

A. Basic Skills
  1. Ball Handling
    a. catching the ball with proper footwork
    b. passing
      (1) chest pass
      (2) bounce pass
      (3) baseball pass
  2. Footwork
    a. change of space and direction
    b. jump and stride stops
    c. pivots and turns
    d. fakes and drives with the ball.
  3. Shooting
    a. set shooting
    b. jump shooting
    c. foul shooting
    d. drive shooting
    e. tipping
  4. Dribbling
    a. use of either hand
    b. protecting ball against a defensive player
  5. Defensive play
    a. defensive stance and slide
    b. guarding the player with ball
    c. guarding the player without the ball.
    d. blocking out after a floor shot
    e. rebounding
B. Techniques and strategy of play
  1. Group skills
    a. screening, types
    b. defense against screens, types

2. Team offense
    a. offense against man to man defense
    b. zone offense
    c. fast break
3. Team defense
    a. man-to-man types
    b. zone

BADMINTON

A. Basic Skills
  1. Serve
      a. short
      b. long
  2. Forehand and backhand
      a. overhead clear
      b. underhand clear
      c. overhand smash
      d. net drop shot
      e. drive
      f. overhead drop
B. Techniques and strategy of court play
  1. Server
      a. type of serve in relation to opponent position
      b. position on court
  2. Receiver
      a. position on court
      b. placement of return
  3. Court coverage
      a. singles
      b. doubles
          (1) side by side, with variations
          (2) up and back.

BOWLING

A. Basic Skills
  1. Grip
      a. straight ball
      b. curve or hook ball
  2. Aim
  3. Approach, 3, 4, or 5 step
  4. Release
  5. Follow through
B. Knowledge
  1. Handicapping for equal competition

GOLF

A. Basic Skills
   1. Correct grip
   2. Half swing
   3. Full swing
      a. short iron
      b. long iron
      c. woods
   4. Approach shots, pitch and chip
   5. Putting
B. Play at least eighteen holes of golf on a regular golf course.
C. Have knowledge of meaning and use of match and medal play.

TRACK AND FIELD

A. Basic Skills
   1. Sprinting
      a. starts
   2. Middle distance running
   3. Baton passing
   4. Running broad jump
   5. Running high jump
   6. Shot put
   7. Hurdling
   8. Discus
   9. Pole vault
B. Knowledge
   1. Organization of track meet
   2. Selection and formation of relay team
   3. Training methods for sprints and middle distances.

FOOTBALL-TOUCH AND FLAG

A. Basic Skills
   1. Stance and starts
   2. Blocking - with shoulder
   3. Passing
   4. Catching
   5. Feinting-pivoting
   6. Kicking
B. Team play
   1. Few offensive running plays
   2. Few offensive passing plays
   3. Defensive tactics against running play
   4. Defensive tactics against passing play.

SOCCER

A. Basic Skills
  1. Kicking; place kick, punt, heeling, passing (inside, outside of foot)
  2. Trapping; one-leg, two-leg, (front inside), foot, heel.
  3. Volleying; foot, knee
  4. Blocking; chest, thighs, abdomen
  5. Heading
  6. Tackling; front, side, hook, split
  7. Body control and endurance

B. Team Plays
  1. Offense; passing, scoring plays, relation of backfield to line.
  2. Defense; marking, covering, relation of forward line to backfield.
  3. Offensive and defensive play for game situations; kick-in, free kick, defense kick, corner kick, penalty kick.

SPEEDBALL

A. Basic Skills
  1. Kicking
    a. long kick
    b. dribble
    c. punt
    d. drop kick
    e. lifting the ball to another player.
    f. kicking or lifting ball up to self.
    g. backward kick or pass on ground
  2. Passing Ball
    a. pass from one player to another
    b. make overhead dribble

B. Team Plays
  1. Offense; passing with hands and feet, scoring play, relationship of halfback to forwards offensively.
  2. Defense; covering, goalie, relation of halfback and forwards defensively.

SOFTBALL – BASEBALL

A. Basic Skills
  1. Hitting and bunting
  2. Base running
  3. Fielding
    a. fly balls
    b. ground balls
    c. thrown balls

    4. Throwing
        a. pitching
        b. throwing to baseman
        c. relaying
- B. Techniques and strategies
    1. Individual play
        a. catcher
        b. pitcher
        c. infielder
        d. outfielder
    2. Team play, offense and defense
        a. hit and run
        b. sacrifice play
        c. squeeze play
        d. trapping player between bases

VOLLEYBALL

- A. Basic Skills
    1. Serve
    2. Volleys; returns, passes
        a. chest level and above
        b. below chest
        c. below waist
    3. Recovery from net
    4. Set-ups
    5. Spike
    6. Blocks
- B. Knowledge
    1. Team offensive and defensive strategy.

WRESTLING

- A. Basic Skills
    1. Takedowns
    2. Breakdowns
    3. Rides
    4. Escapes
    5. Reversals
    6. Pinning holds
    7. Grips used

- B. Knowledge
    1. Techniques of conducting singles match and dual meet.
    2. Wrestling strategy.

CONCLUSIONS

1. There is substantial agreement in the profession concerning competencies in relation to self, others, and the profession.
2. Agreement has been achieved concerning the knowledge and understanding necessary for students in relation to skills and practices.
3. The profession has identified the skills that each major student should be able to analyze, demonstrate and explain.
4. The profession has identified the minimum level of skill competencies needed by men Physical Education students in California.

RECOMMENDATIONS

1. It is recommended that the results of this study be accepted by the Executive Committee, CAHPER.
2. The results of this study should be made available to all Physical Education faculties of junior colleges and four-year schools.
3. All junior college and four-year school faculties should develop course outlines that include the skills, knowledge and practices agreed upon by the profession as indicated in this study.
4. All junior college and four-year schools should make the competencies in relation to self, to others, and to the profession available to each potential major student.
5. New faculty members should be oriented as to the results of this study.
6. Evaluation of the results of this study should be conducted by all departments of Physical Education. Recommendations should be sent to the Chairman of Professional Education, CAHPER.

AN EXPERIMENTAL APPROACH TO THE UNDERGRADUATE PREPARATION OF TEACHERS OF PHYSICAL EDUCATION

J. M. Pease
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In the last half century the changing concept of the role of education and the pressure to produce graduates capable of fitting into out society have brought about critical changes in secondary school curriculum. Institutions preparing teachers have constantly adjusted their programs of professional preparation in order to keep abreast of the demands for specialized personnel. In more recent years it has become evident that specialization alone does not produce an educator and, as a result, the concept of general education has become a part of the requirements for graduation in the majority of institutions of higher learning in the United States. The demands for a higher degree of specialization, needs for a broad common background for all teachers and an increase in the scope of the program of physical education in the public schools have made it difficult to produce a competent physical educator in the time alloted in the undergraduate program. The purpose of this paper is to show how professional preparation in physical education may be enhanced through the utilization of a different approach.

In the final analysis teachers and the type of students they have to work with make the difference between a highly competent educator and one of mediocre ability. Organization can, however, assist in accomplishing the goals sought. In many instances forces have influenced the development of physical education curricula in a manner that has made it difficult to achieve an adequate level of competency in the undergraduate program. As deficiencies became apparent departments of physical education added courses in an attempt to solve the problem of adequate professional preparation. Increased state certification requirements also brought about increased offerings in physical education. In addition, courses were added in some physical education departments to provide an academic escape hatch for struggling athletes. Once a course is added, there appears to be great reluctance, on the part of those responsible, to eliminate it from the catalog. In some cases this has resulted in such a great number of courses that it is impossible for the undergraduate to do more than sample the department's professional curriculum. Where this has occurred a minimum level of teaching competency has resulted.

This need not be the case, however. There is much substance for the future teacher of health and physical education in the general education program. To obtain maximum results, the professional student should take, whenever possible, courses in the area of general education that will contribute to development of the specialist in physical education as well as the well-rounded educator. This can be assured by carefully counseling the professional student in his selection of required electives in the general education pattern.

Frequently there is much lost motion and inefficient teaching in the traditionally-structured course patterns. Classes meeting for fifty-minute period two or three times a week lend themselves to inefficiency due to lapsed time between meetings. This is especially true in the teaching of activities. Where single periods are utilized, as much as forty percent of the period is used in dressing, organization and showering after participation. The first proposed change is the adoption of large units of time for instruction and the utilization of daily periods. This is not difficult to accomplish, provided that a thorough study of the requirements in other areas is made and periods selected that, in the main, do not involve major conflicts. This is not a new idea; departments of fine and industrial arts have been using double periods for years to avoid loss of teaching time.

As has been stated before, many attempts have been made to solve the problem of adequate professional preparation by simply adding new courses. It appears that the direction that now should be taken is to consolidate courses and develop concise, well-planned, large units of instruction. Moreover, duplication of material should be avoided in health and physical education whenever the nature of the subject matter to be learned is similar. Every effort should be made to ''identify and make use of interrelated areas of the fields.''[1]

The second proposed change is that subject matter areas be consolidated into large teaching blocks centered about a core of common concern, or around a central problem or issue. There might be as many as eight of these cores in the undergraduate program which are structured to meet two periods a day, five days a week. This proposal immediately poses some problems that must be solved before the plan can be put into operation. Any plan that is to be adopted must be able to function within the framework of the present college organization. State certification requirements and athletic eligibility are tied to the traditional course pattern. Students transfer and the registrar must evaluate transcripts in terms of credit earned in courses. For these reasons course titles must be retained in the cores, and grades given for each course at the end of the term.

A provision also must be made to take care of the student who decides to change his field of major interest. As a general rule a student should be able to graduate in four years if such a change is made prior to the beginning of the junior year. This can be accomplished in part by utilizing general education courses offered by the department in the cores set up for freshman students. For example, a student who elects physical education as a teaching area at Kansas State Teachers College of Emporia, is required to take a two semester hour course in Personal Health Problems. This course and four semester hours of physical education activities are required for all students as a part of the general education program. Assuming that these courses were utilized in the freshman cores, the physical education student could earn six credits that would count in either physical education or general education. In addition to these courses, there is an x number of elective credits a student must take to complete the required number of hours for graduation. As long as the total credits in the cores for the first two years do not exceed the combined total of department general-education courses and elective credits, a student can still graduate in four years.

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[1] Raymond A. Snyder and Harry A. Scott, Professional Preparation in Health, Physical Education and Recreation. New York: McGraw-Hill Book Co. Inc., 1954, p. 75.

The use of course titles in the development of the cores would tend to perpetuate the difficulties inherent in the present pattern. In order to overcome the problems of the course type of organization, a detailed course of study would have to be developed integrating all of the courses in the core so that they would, in reality, lose their identity as parts and result in a whole that is greater than the sum of its parts. The idea of the whole, or ''Gestalt,'' is basic to the core approach and is one way of overcoming the shortcomings of the course-taking patterns which review each course as though it were an end in itself totally unrelated to other curricular offerings. While this may not be the fault of the teacher, it occurs nevertheless and, as a result, the same thing must be taught in two or three different courses before it is learned. Even then, in many cases, the relationships are lost simply because of the break between courses, and the remoteness of theory and practice.

The idea of associating theory and pactice is not inherent in the core approach. The concept that a student learns how to teach through theory and laboratory courses and practices the application of these experiences at a later date is ineffective. The third proposal is that theory and practice be integrated in the cores. Students should have first hand experiences as close to the theoretical presentation as possible. These experiences do not have to come immediately following the discussion of a problem, but should be near enough so that the material is still fresh in the mind of the future teacher. For example, there are unlimited learning opportunities outside of the regular classes. One such opportunity is related to the conduct of athletic contests. It seems unwise not to use these learning opportunities in a core devoted to the organization and conduct of athletics even though it might be necessary for the student to spend additional time outside of the regular teaching period.

The program as outlined may appear to be demanding of the student's time for the amount of credit earned. Credit, however, should not be granted for time spent but should be based on competency. Furthermore, it is not necessary that a student receive credit for every act he performs during preparation for his chosen vocation.

In summary this approach would:

1. Increase teaching efficiency by utilizing more effectively the time available.

2. Serve as a means of establishing desired relationships between the various facets of the program and its overall purpose.

3. Make it possible to integrate theory and practice.

4. Insure a higher degree of competency in the beginning teacher.

5. Make it possible to move immediately in the proposed direction without a general change in the overall college curriculum.

TYPES OF MEDICAL PROTECTION FOR INTRAMURAL INJURIES

(Survey by Ray Scheerer, Graduate Studies, Kent State University)

Reported by Spurgeon Cherry
University of Florida

STATEMENT OF THE PROBLEM

With an intramural program growing in size and emphasis, a growing number of injuries also seems to occur especially in the contact sports. The administrators have attempted to make intramural sports as safe as possible, so that a maximum number of participants may engage in these activities with a minimum number of accidents occurring.

This is usually a difficult job because, ''Sports are adventurous and satisfy youth's normal demand for risk and daring activity . . . .''[1] Young men have an innate desire to participate in dangerous activity. The college man is right at the peak of this danger-seeking age, and, if not given an opportunity to participate in breath-taking escapades in athletic events, he will pursue them elsewhere, possibly in a less desirable atmosphere.

> Practically all activities involve hazards, athletics particularly so, since they are situations largely organized around the emotional tendencies of attack and retreat. Also, since athletics involve play with the emotional patterns of fear and rivalry, cooperation and individual aggrandizement, defeat and success, it follows that much is at stake and risks will be incurred to achieve success. Some of the hazards found in athletics then are due to the nature of the games; to remove these would be to dehydrate the activities until they become unrecognizable and uninteresting.[2]

It appears, then that it is impossible and extremely undesirable for intramural administrators to attempt to remove all the hazards from intramural athletics. It is possible and desirable, though, to lessen some of the more frequent and extreme hazards.

The organization of a program should be the first aspect examined when the safety of intramurals is being studied. A program should be offered which provides the least possibility of injuries occurring. ''Schools should not sponsor or conduct those sports or activities in intramurals . . . . for which adequate protective equipment and safe facilities cannot be provided.''[3]

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[1] Don C. Seaton, Safety in Sports. (New York: Prentice-Hall, Inc., 1949) pp. 48-49.

[2] Frank S. Lloyd, George G. Deaver, and Floyd R. Eastwood, Safety in Athletics. (Philadelphia: W. B. Saunders Company, 1939) p. 6.

With the organization of the intramural program on a sound basis and with the provision of adequate and safe facilities, there is still likely to be occurrence of occasional injuries when ''Participants are comletely lost in the activity — all their faculties and energies are focused on the outcome. The experience not only calls forth the last ounce of physical effort, but captures the emotions of the players as well.''[4]

Since accidents and injuries to intramural participants cannot be completely eliminated, the administration of any institution sponsoring intramural athletics must consider the extent of its responsibility in the event of such accidents. If the administrators is prepared to care for those injuries which do occur, it would not only be for the benefit of the student, but for the benefit of the administrator as well. The legal liability for injuries is of great importance to those in charge of the intramural program. This legal liability for administrators can be classified as it applies to three groups of people:

Trespassers - This person has no connection with the program thus there is no liability.

Licensees - The person uses property made available to him. He has permission to use it. This permits a limited degree of liability.

Invitees - This person uses the property for which it has been established such as an intramural sports program. There is a great deal of liability connected with this situation.[5]

This study is concerned with the school's preparation for the care of intramural injuries. The extent to which colleges and universities assume responsibility for the treatment, and for the payment of treatment, of injuries sustained by students participating in intramural sports is evaluated. Part of this study concerns itself with the extent to which colleges and universities have availed themselves with health and accident insurance plans to pay for treatment of such injuries.

Procedure and Sources of Material

Because there is an inadequate amount of written material on this subject, it was necessary to obtain information directly from the intramural offices of colleges and universities. To obtain this information a questionnaire was sent to schools throughout the United States. One hundred-forty questionnaires were sent to selected colleges and universities. Of that number one hundred-eight replied, making a seventy-seven percent return. At least one return is recorded from each of the forty-eight states.

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[3] Rodney J. Grambeau, Intramural Athletics-the Safety of the Participant Second National Conference on Campus Safety, Minneapolis, 1955, p. 3.

[4] John F. Shaw, Selected Team Sports for Men. (Philadelphia: W. B. Saunders Company, 1952) p. 1.

[5] Grambeau, p. 7.

Definition of Terms

A definition of "intramural athletics" is necessary to the interpretation of this study. Intramural athletics therefore may be defined as athletic activities carried on within the walls of an institution.[6] Listed below are some considerations used in defining intramural athletics:

1. Activity should take place within a particular institution.

2. The activity should have voluntary participation.

3. The activity should be organized.[7]

A definition of the word "protection" is also necessary. For the purpose of this study protection is any medical aid which may or may not be provided for college or university students.

A "Campus infirmary" as used in this study, is any infirmary or hospital which is under the auspices of the college or university administration. A "local hospital" is defined as any hospital which is close enough to the campus to enable the facilities to be utilized if necessary.

Limitations

This study is limited to the men's intramural program only.

The selection of colleges and universities to be sent questionnaires was based on the size of enrollment and the geographical location. A small, a medium, and a large college or university in each state was sent a questionnaire, except where a state did not have an institution of high learning that could be classified in one of these groups. The selection of these schools was taken from the 1956-57 edition of The Athletic Blue Book. For this study, a small school was considered to have less than five hundred men students enrolled. A medium sized school had more than five hundred but less than two thousand men enrolled. A large school had over two thousand enrolled.

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[6] Edward F. Voltmer and Arthur E. Esslinger, The Organization and Administration of Physical Education (New York: Appleton-Century-Crofts, Inc., 1949) p. 233.

[7] Harrison M. Clark, "The Use of Intramural Statistics" Research Quarterly of the American Physical Education Association, March, 1938, p. 27.

SUMMARY

The question dealing with the disposal of intramural injuries resulted in the following figures. Injuries treated at the campus infirmary - 75%; Injuries treated by the campus doctor - 44%; injuries treated by a trainer - 42%; injuries treated by first aid - 51%. In 54% of the cases a first aid kit was available. In most cases the above figures were overlapping.

There were 77% of the institutions replying that provided only first aid for intramural injuries. 40% cared for their injuries in the campus infirmary. Of the 44 campus infirmaries, 95% were equipped to X-ray injuries; 77% performed minor surgery, 34% operated on internal injuries, and 25% operated on head injuries.

53% of the schools had the facilities of a local hospital available, 100% were equipped to X-ray, 95% reset bones, 96% performed minor surgery, 89% operated on internal injuries, and 82% operated on head injuries.

In 55% of the cases the student paid the complete medical bill. 39% of the schools paid the bill through the use of student fees while only 14% of the schools withstood the complete financial responsibility. 4% of the scholls paid part of the expenses from other sources.

50 schools or 46% of those replying had some type of insurance plan for their intramural sports participants. 32% of these plans covered all medical expenses. 88% covered X-rays, 32% covered minor surgery, 70% covered dental care for teeth which were otherwise normal.

Commercial companies were the underwriters in eighty percent of the cases with the school underwriting 20%. 40% of the schools stated that their insurance plan was mandatory for the students.

68% of the schools reported that their insurance plan covered intramural and intercollegiate athletic participants alike. 28% of the plans covered everything but intercollegiate athletic participants. 4% covered intramural participants only.

The cost of this program to a student varied anywhere from 50¢ per year to $50. per year. The 50¢ plan was one which covered intramural participants only. The plan which covered everything including intercollegiate athletics varied from $4.50 per year to $12.50 per year with an average of $7.00.

Recommendations

The information provided prompts the author to encourage further study in this area since there has not been enough research accomplished in this part of intramural sports.

Schools should not offer activities in their intramural program for which they do not have the facilities and trained personnel to care for them. This includes medical facilities, playing areas, equipment and competent personnel.

The implications derived indicate that there is a need for some method of caring for intramural injuries which will lighten the financial load of the student.

There are enough types and variations of insurance plans available that any school which offers an intramural program could find some sort of a plan to meet its need.

Injuries will never be completely eliminated, but they should be reduced to as few as possible and some method of caring for those injuries which do occur should be available. The method in most common use, and seemingly the most satisfactory one, is to make accessible to students some form of low-cost medical insurance.

INTRAMURALS AT THE UNIVERSITY OF OKLAHOMA

Paul V. Keen
University of Oklahoma

I have been asked to discuss intramurals in a large university. Our program is no different from any other university of our size, with similar conditions, but I am going to discuss just how we do things and maybe by an exchange of ideas we may learn better how to improve our programs.

The facilities, weather conditions, and location determine to a large extent the program of any school. We have a 15 acre outdoor area that is arranged with 12 softball fields and rearranged for 12 touch football fields. We have a navy hangar two miles from our campus with 5 basketball courts and also marked for 6 volleyball courts – 15 badminton courts, and 4 tennis courts. We use the athletic and physical education facilities for other sports such as: swimming, track and field, handball, golf, tennis, horseshoes, boxing, and wrestling.

Our touch football and softball games are scheduled at 4:15 p.m. with basketball and volleyball scheduled at 7:00 p.m., 8:00 p.m., and 9:00 p.m. in the evening. Other sports are scheduled at a time convenient to most students. Practice periods are arranged for all sports before and during the season of each sport.

We are organized under the Athletic Department and our budget comes from athletic receipts. We have two full-time staff members who supervise and administer the program.

We have a full-time office secretary, and a full-time ground keeper. We have our own equipment for maintenance of our fields.

We have an Intramural Board of Junior and Senior Managers, with the Interfraternity Council and the Independent Mens Association each having a representative and the two Intramural Staff Members as the Board of Control.

We also have an Intramural Managers Board consisting of one member from each unit of competition on the campus and all problems referred to them are decided by a majority vote.

Our general plan for competition is for team sports to put five or six teams in a league, then take the two top teams of each league and have a single elimination tournament to determine the champions. In boxing and wrestling, we have a tournament and in swimming and track and field, a meet of two or three days duration. In individual sports we run an open tournament single elimination bracket with a deadline for each round being set a week apart, with the individuals responsible for contacting their opponents and setting a date to play.

We have ''A'' and ''B'' team competition with the better teams required to be in the ''A'' league. Our units for competition include, fraternities, university housing units, and independent units, organized as pick-up teams, student church groups, etc.

In all team sports one or both of the faculty staff members are present, and most questions are decided on the field or court, eliminating most protests.

We encourage extramural competition between teams of like organizations on other campuses near our university, and give them the use of our facilities, but we do not schedule them. No fees, for admission is charged. We do schedule ''play days'' for some sports and invite teams from near-by campuses.

Our program is a typical Mid-western intramural one, and we are working to improve it each year.

IMPLEMENTATION OF THE WASHINGTON CONFERENCE

Rodney J. Grambeau
University of Michigan

The Washington Conference on Intramural Sports for College Men and Women held in November, 1955 was an outgrowth of the Conference on Physical Education held in October, 1954. Due to the numerous problems arising, directly concerned with intramurals, it was decided that a separate conference would be necessary. Through the efforts of the AAHPER, NAPECW, and the CPEA the intramural conference was planned.

It was attended by 110 delegates representing 79 institutions from 39 states and Canada. Delegates were invited on the basis of geographical location, size and type of institution, experience, and sex. Four representatives from the secondary schools were included.

With the conclusion of the conference and the subsequent publiching of the report the need for getting the information into the hands of various interested groups was met through the development of the Implementation Committee.

The Committee was composed of nine members, three each from the CPEA, the AAHPER, and the NAPECW. Members were chosen by the presidents of these associations and held their initial meeting in March 1956.

The principle objective of this Committee is to see that materials and ideas of the Washington Conference are made known to school personnel who were not present at the conference.

M. M. Mackenzie, of the Air Force Academy was elected chairman of the group with Katerine Ley of the University of Colorado as chairman-elect.

A few examples of items discussed at the first meeting which might be of interest are:

1. Initiate a campus-wide study of what exists and what can be done to upgrade the present program.

2. Use the evaulation form in each institution — intramural councils or boards should participate with the faculty concerned in such evaluations.

3. Conference reports should reach administrators of the institutions. Since cost would be prohibitive probably for AAHPER to do this it was suggested that the intramural director or council buy one or more copies for this purpose.

4. Student union personnel should be contacted locally at each institution. And also at their professional meetings.

5. Institutional faculty meetings could include on the agenda ten to fifteen minutes for a report on the intramural conference.

6. Television programs on intramurals should be planned and used. Films of intramural activities can be used on TV between game halves.

These are few of the suggested uses of the report by the Committee. Due to the national emphasis on physical fitness and the "on the job" pressures this Committee has been unable to meet. However efforts have been made by individual members of the Committee in their respective areas to implement the results of the national conference.

Reports have been made at various athletic and physical education meetings throughout the country. A number of persons have used the information in the classroom both for undergraduate and graduates. Results have been reported at local service organizations. The report has served as a basis for a statewide survey of both high school and college intramurals and a doctoral dissertation is in progress concerned with the report.

Reports from the national office indicate that approximately 500 to 600 copies have been distributed. This would indicate that the report is being used throughout the country. But I strongly feel that it has only scratched the surface.

Increased enrollment means to all of us an increase in our intramural programs. It is felt that the materials presented in this report suggest and lend guidance in these situations.

The position of the intramural program in respect to the total campus recreation program appears to be coming more and more in the focus of various administrators. This phase of intramural administration is treated at some length in the conference report.

One of the most stimulating types of discussions for intramural directors is one in which you find out how other fellow do things because we all all concerned with the improvement of our programs. In the conference report are suggestions from some 100 persons vitally interested in intramural programs. What better place to find stimulation and suggestion for improvement.

If the importance of this report is accepted by this group, representing one of the sponsoring organizations, and if each member present will obtain and use this repot, if they have not already done so, I am sure you will be instrumental in assisting in its continued implementation.

Copies are available at the American Association for Health, Physical Education, and Recreation, 1201 Sixteenth Street, N.W. Washington, D. C.

REPORT TO THE NATIONAL COLLEGE TOUCH FOOTBALL RULES COMMITTEE

Rodney J. Grambeau
University of Michigan

In accordance with plans approved at the 1956 meeting your chairman has been in the process of contacting various committee members, reviewing rules used by numerous colleges, and gathering opinions concerning the present national touch football rules in preparation for revising the present handbook. It was expected that this would be carried on over a two year period inasmuch as it was anticipated that the reprinting of 1000 rules handbooks would last for that period.

However, this was not the case as the following letter was received on October 8, 1957.

> Dear Rod,
>
> The sale of the National College Touch Football Rules Handbook got away from me. I didn't realize that we were practically sold out. During the month of September we sold 311 copies and we now only have about a dozen copies left.
>
> I presume there will be additional orders coming in for this fall season, which we will not be able to fill unless you authorize a reprint job of another 1,000 copies. This, of course, would mean that there would be no changes whatsoever for the 1958 season, since we will not be able to sell so many more copies this fall.
>
> I have figured out an approximate profit and there will be over $100 coming to the College Physical Education Association on the last thousand copies printed.
>
> Please let me know whether I should order a reprint now, or whether we should hold off because of any changes your committee might want in the next edition.
>
> Very sincerely yours,
>
> Theodore P. Bank
> President
>
> P.S. I presume that when we have sold the last copies, a check should be made out to the College Physical Education Association. Please let me know.

On October 9th Mr. Banks was sent the following letter:

> Dear Ted,
>
> Received your letter concerning the National College Touch Football Rules Handbook and I am happy to hear that they are selling so well.
>
> It appears to me that the best thing to do at this time is to refrain from printing any more copies until the revised edition for 1958.
>
> As the plans now stand, the committee will be meeting at the C.P.E.A. in January at which time final editorial changes will be approved.
>
> It should be possible for me to get a revised copy to you by February, for publication by you as soon as possible.
>
> I would appreciate a report of the number of copies sold, cost, profit, etc. so I can include this in a report to be given at the January meeting of the C.P.E.A.
>
> You are correct concerning the check. Make it out when it is convenient to you and then any that is left over can be carried over later.
>
> With kindest personal regards,
>
> Sincerely yours,
>
> R. J. Grambeau

The requested report from Mr. Banks was forthcoming when the following letter was received:

> Dear Rod:
>
> I have your letter of October 9, 1957, and since writing you last we have sold all of the College Touch Football Rules books.
>
> You will remember that we had a printing of 1,000 copies. Actually, only 952 copies were sold. The other 48 copies went into distribution; some on a free basis to the various committee members, a few were stolen at some of our exhibits, and then there were a few damaged copies.

I am submitting a report of sales as follows:

952 copies sold at varying discounts up to 40% — Receipts — $348.60

Packaging and overhead costs 10%	$ 34.86
Postage and envelopes	30.60
Printing costs	180.00
	$245.46
	$348.60
	245.46
Profit on Sales	$103.14

You will remember that on the first printing we had 2,000 copies and that resulted in a profit of one hundred and sixty dollars and some odd cents to the College Physical Education Association. This printing of 1,000 copies resulted in a profit of $103.14, in spite of the fact that we did sell some copies to sporting goods dealers at a 40% discount. I am enclosing a check, made out to the College Physical Education Association for the amount of $103.14. I, of course, am very happy that this venture resulted in a profit for the College Physical Education Association, since I know that they can use any such monies. If and when you are ready for the next edition and still want The Athletic Institution to handle the printing and distribution, let us know and send us the changes for the new edition.

With kindest personal regards, I remain,

Sincerely yours,

Theodore P. Bank
President

The check for $103.14 was forwarded to Dick Jamerson, Secretary of the C.P.E.A. Up to the present 3,000 copies of the National College Touch Football Rules Handbook have been printed resulting in a net profit to the C.P.E.A. of $263.19.

Of additional interest is a proposed book by John V. Grombach titled Safe Touch Football to be published by the Arnold Press sometime in April, 1958 at a price of $2.95. In this book Mr. Grombach plans on including eight or nine different sets of touch football rules, including the National College Touch Football Rules. It was hoped that he could use the revised copy, but his publication date prevents this.

Permission to reprint the National College Touch Football Rules was given to Mr. Grombach after correspondence with Mr. Banks in which he indicated that he felt there would be no objection to allowing him to reprint the NCTF Rules inasmuch as his book will not have a wide distribution. In fact he indicated that it might even help the sale of our handbook.

Mr. Banks indicated that Mr. Grombach recently made a survey of over 2000 colleges and universities, as well as a considerable number of prep schools and public schools in preparation for his book.

One of the items on the agenda of the Western Conference Intramural Directors meeting at their meeting on December 5-6 was a report by your chairman on the National College Touch Football Rules and some of the proposed changes.

A number of excellent suggestions were made concerning the revision and it was indicated that all members present would give the National Rules their support.

With the exception of the presentation of the suggested revisions this concludes the yearly report to the committee.

Respectfully submitted,

Rodney J. Grambeau
Chairman, National College
Touch Football Rules Committee

CONTROL OF INTERCOLLEGIATE ATHLETICS BY STATE, CONFERENCE OR INSTITUTION

Assemblyman Frank G. Bonelli
California State Legislature

My personal opinion is that the Intercollegiate Athletics can best be handled by the institutions themselves. In the case of the Pacific Coast Conference and the predicament they now find themselves in as to members bolting, clearly indicates the failure of the conference type of authority and jurisdiction over membership. It might necessarily follow that an all-California Conference would fare better and have a better chance of meeting with success if made up entirely of California Colleges as members. Only time, of course, would determine the need for such a conference and whether it would be justifiable.

State's interest in inter-collegiate athletic activities should be limited to participation through investigation by legislative committee when it appears the best interest and welfare of California Colleges Inter-Collegiate Activities are in jeopardy and in need of highlighting irregularities resulting in curtailment of sound business approach and management.

It may be contended that the State Legislature lacks jurisdiction over intercollegiate athletic activities, with this I disagree, and most assuredly if not directly, surely indirect jurisdiction. Certainly the two major state colleges, totally subsidized by action of the State Legislature, and in the case of the two private colleges, it may be concluded there is an indirect State tie-in as a result of tax exemptions granted on real property, improvements and fixed assets.

With this in mind, the Legislature is cognizant of the uncertainty of P.C.C. continuing as a conference and authorized complete investigation of various ramifications.

One phase of the investigation was that the California Colleges may have, by membership in the Pacific Coast Conference, relinquished their right to independent review. In 1941 the then Attorney General, Earl Warren, ruled the State Athletic Commission could not join the National Boxing Association (NBA) without retention of the right of independent review, which would allow the State Athletic Commission to review any penalties, suspensions or fines and then either accept of reject accordingly.

Attorney General Brown was asked to rule on whether the California Colleges had relinquished such authority to P.C.C. His answer, in opinion issued, was that the Presidents of the California Colleges retained the right of independent review yet they were undoubtedly not exercising such rights in accepting fines, suspensions and penalties by P.C.C. without raising question as to their being excessive, drastic or paying under protest.

Such questioning was directed of Chancellor Kerr at investigation meetings held in San Francisco. His answer was that they were endeavoring to be compatible with P.C.C. and accepted a fine of $25,000 without objecting or exercising right of independent review.

Now, at meetings in Los Angeles of Committee, and again in San Francisco, it was made clear to committee by witnesses appearing that money paid in fines to P.C.C. was not public money, or State's, or institutions, but associated student body funds. If such, it follows that the Chancellor or President, as trustee for student body monies, should guard zealously payment of fines from this fund and, under responsibility as overseer of student body monies, reduction of fine should have been sought, or paid under protest, or payment refused entirely.

Another point of conflict and perhaps illegal P.C.C. jurisdiction, centers around removal by an amendment in 1955 to P.C.C. Charter, of $1,000 fine limitation, and by such removal, created a "no maximum" fine limitation. The University of Southern California paid their $15,000 fine assessed against them by P.C.C. under protest and, I understand, shall take legal action to have the fine refunded on grounds it was illegally assessed. Substantial court litigation determining that it is illegal for an association to assess fines against members wherein their charter does not designate maximum fines that may be assessed upon members. One case in question was that of a dry cleaner who joined a clearner & dyer association wherein members in joining consented to fines being assessed for violation of associations code of ethics. Said member charged with such violations was assessed a fine of $2,000 but refused to pay and was taken into court. The decision handed down was to the effect that because the association's charter had no maximum fine limitation the member need not pay.

P.C.C. fines, in substance, appear to be illegal due to like circumstances. The construction of the P.C.C. is basically unsound with nine colleges having membership therein and five of these colleges outside the State of California and only four inside. Thereby, the majority vote on conference matters and decisions can easily be controlled by the five out of state colleges to the detriment of California Colleges.

Idaho should not enjoy membership in P.C.C. and have a vote comparable with actively participating members, many times casting their lot with the members outside of California.

The climate of intercollegiate athletics, particularly football, in California can be substantially strengthened and returned to it's rightful position amongst the leading football teams of the nation. This can be accomplished while maintaining highest scholastic standings and yet the finest of football teams.

Greatest of intersectional games between California and such opponents as Army, Navy, Oklahoma and others. With the Rose Bowl again on a high plain and again recognized as the most outstanding bowl game of all between top California College and the most outstanding opponent from elsewhere.

Resultant increase in revenue due to California teams improved caliber and brand of football outside of P.C.C. can materially benefit colleges over-all intercollegiate athletic activities and obviously should be uppermost as a goal and accomplishment.

Colleges in California can stage substantial comeback in prestige and drawing power amongst sports-minded football fans by again providing outstanding teams. Only through such an atmosphere can colleges expect to hold their own with professional football which has made tremendous strides and is attracting more and more fans because of recent P.C.C. deterioration from within.

CONFERENCE CONTROL OF INTERCOLLEGIATE ATHLETICS

Ferron C. Losee
Los Angeles State College

The control of intercollegiate athletics by an athletic conference is certainly one of the more vital issues in the intercollegiate athletic program. This is especially true at present in the Pacific Coast area.

Should a conference control this program at all? If so, how much control should it exercise? What techniques should a conference use in its control? These are only a few of the questions in connection with this topic. A topic that everyone discusses and about which everyone has the answers. It's comething like asking a parent how much control should be exercised in raising a child. Each parent has his own answer. In the case of athletics, however, the child may leave home if things get too rough.

In the last few weeks I have reviewed the published objectives of the N.C.A.A., as well as, various successful and unsuccessful local athletic conferences. I have also polled college and high school coaches, athletic directors, conference faculty representatives and one or two college presidents. Needless to say, the opinions differ.

My own opinion, while backed by a doctoral dissertation a few years back and by the recent research just referred to, is worth very little because each of us have strong fixed feelings in this matter. All answers are subjective, none of us have the absolute correct solutions.

We do need a more clear-cut understanding of our present status in order that we might intelligently approach our problem. First of all, an athletic conference exists for desired and convenient scheduling of athletic events. It attempts to bring together institutions who have similar standards and policies, who have somewhat equal strengths in the overall athletic program on a long-time basis. It also attempts to formulate a general framework of policies and procedures within which each member institution may conduct its program for the mutual benefit of all member institutions.

Usually a conference finds it necessary to set up certain controls through which these policies and procedures are protected. I personally believe that the conference executive committees, or policy making bodies are men of integrity. They are not as stupid as often painted. Yet, its also true that they are sometimes unqualified for the job and make some serious mistakes which have far reaching effects. Their actions directly influence young men at a crucial time in their lives, they affect lives and careers of coaches, athletic directors and other college officials. These actions often seriously affect the future of the institution itself.

There are instances unfortunately, when conference policies and procedures are formulated by selfish men who permit politics to direct their action.

In my opinion the intercollegiate athletic conference is a worthwhile arrangement and very important to the successful conduct of this wonderful program. Any program which interests and affects the American people like college sports does, is bound to have problems. Everyone wants to get in the act. Frustrated athletes of the past, are now strong-voiced alumni, some are college presidents and some are full professors who seek and obtain positions as conference faculty representatives.

An honest consideration of this problem forces me to mention the fact that we cannot place all the blame for conference difficulties on the faculty representatives, college president, the press or the alumni. We have far too many coaches and athletic directors who are not educators, yet they are employed by an educational institution and carry this (title?). We all wish they would dignify the calling.

Other serious problems in the conduct of athletics include various abuses, some unintentional and some even planned abuses by the layman, or the termites that bore from within. We recognize these hurdles, but most of us, like any good athlete, accept the challenge and believe we can eliminate these evils and place intercollegiate athletics firmly in the educational process.

I have said, that in my opinion, the conference arrangement for administering intercollegiate athletics is a good one. While some conferences have failed, others have not and if a conference accepts the role of service, first to the athlete, then the institution (remembering the fact that the institution is established for the students), and finally to the public, it certainly has a function in the administration of college sports. How much control should a conference exercise is answered by another question. How much is needed to serve well? Control is really not a desirable term. It implies policing, a force which educational institutions should use only as a last resource. Perhaps, instead of conference controls we might use the term responsibilities.

One responsibility could well be that of justifying the athletic program as a vital phase of the educational experience. The conference should clearly define its objectives, its policies and procedures which guide the conduct of the program. This statement of objectives, policies and procedures might well be published to avoid misunderstanding on the part of everyone concerned. The conference provides a wonderful opportunity for a number of institutions to jointly work out common problems to assist one another in promoting athletics on an educationally sound basis. Another very important function is to protect athletics from unfair practices, or outside pressures.

There are numerous other beneficial functions of a conference such as up-grading the officiating of contests; providing standardized business procedures, and assisting in the publicity and promotion of intercollegiate athletics.

The responsibility for enforcement of rules and regulations is certainly not the only function nor the most important function of a conference. Officials who take this negative approach to their duties are, in my opinion, completely unaware of their place in the athletic picture.

A strong conference, with qualified personnel guiding its destiny has very few violators of rules. There is a key word in the above statement, however. The word "qualified." Intercollegiate athletics is not only an important program, it is also a very complex program. To adequately formulate policies, standards of procedure, and intelligently administer intercollegiate athletics, one must qualify himself as carefully as though he were directing any other important area of the college program. No college program, except athletics, allows untrained faculty personnel to govern its activities. I am not denying the advantages which exist from informed faculty representation at conference meetings. I am, however, questioning the ability of faculty, without athletic experience and current knowledge of athletic procedures, to intelligently determine intercollegiate athletic policies. If these men are allowed to make important conference decisions, they must be trained; they must be qualified to do so.

Perhaps, the peculiar manner in which this program developed had much to do with the mistrust educators have for athletics. It developed outside the regular college program and has been controlled in various peculiar ways since. It was first financed and controlled from the outside, then student financed and controlled, and now both student and institutionally financed and controlled.

Many believe that it must be solely financed and controlled by the institution before it can truthfully justify itself as an integral phase of the college experience. It is not my desire to press this point. I only mention the history of college sports as a possible explanation for the peculiar view some educators take toward personnel in this field.

I am thoroughly convinced that if all athletic directors had no coaching duties, and all college presidents held their athletic director directly responsible for the success or failure of the athletic program, there would be very little need for policing or conference penalties.

My proposal, for what it's worth, would be two official representatives to every athletic conference. The athletic director and a faculty representative who qualifies as a person understanding institutional administrative policies, faculty and student opinions and at least the more general aspects of intercollegiate athletics. I would further propose that this faculty representative be a member of an institutional athletic advisory council (advisory to the athletic director). His conference vote would be equal to, but no more than that of the athletic director. This could be spelled out further, but I believe the significance of the proposal is clear.

The N.C.A.A. has set up guide lines for the conduct of intercollegiate athletics. It is felt by many that all restricting rules should be put on a national basis, with the national organization standardizing intercollegiate athletics for all colleges. Travel is becoming more convenient each year; and competition is not confined to the local areas, thus, making national control a more logical procedure.

A conference that believes its main function is policing and controlling the athletic program is doomed. This negative approach is not only stupid, but offeres a challenge to a very competitive group of people.

A conference that accepts the role of service, that believes in the integrity of athletic leaders and enjoys unity more than debate or arguments, is making a real contribution, not only to the intercollegiate athletic program, but to education in general and especially to the development of young men.

CONTROL OF INTERCOLLEGIATE ATHLETICS
By
STATE, CONFERENCE OR INSTITUTION

Wynn Fredericks
University of Southern California

This panel includes a legislator who is interested in education as well as representatives of state universities, state colleges and privately endowed universities. My own education and teaching experiences have included all three types of institutions plus a term as a bureau chief in a state department of education. This afternoon I will confine my remarks primarily to the problems of privately endowed institutions. My able colleagues on the panel will present the other aspects of our question.

I. State Control. Private colleges were operating in America well over 100 years before the American Revolution, 200 years before the first land grant colleges were established and 300 years before it was suggested that state legislators should control their athletic policies and administration. Most of them were founded to give a liberal arts education in addition to their other basic function of training clergymen for their respective denominations. The latter not only gave them financial support but also were well represented in the college administration and on the board of trustees. While their educational functions have expanded tremendously since their early years and their control has become nondenominational in most instances, their entire financial support continues to come from private individuals, foundations and corporations with some revenue still being supplied by their founding religious groups.

Federal and state governments have not supported them financially and, as a corollary, have not exercised control over their academic or extra-curricular activities. This is as it should be. The privately endowed institutions are needed in education to pioneer, to experiment, to develop new concepts, to be non-conforming and to supply the leaven for changing ideas in education. It is difficult for state institutions to do these things because their great purpose in education is to give large numbers of young people a college education meeting certain minimum standards. Additional factors which inhibit drastic changes are: (1) the political pressure groups which try to control educational policies; (2) the political spoils system which sometimes operates at administrative levels and tends to make the incumbents ultra conservative.

It goes without saying that at the private colleges extra-curricular activities as well as curricular and administrative affairs should be outside the jurisdition of state agencies. Athletics are one part of the extracurricular program and should be solely under the college administration.

II. Conference Control. A soundly conceived athletic conference presupposes equality among the members. Some of the factors which are involved: (1) Institutional philosophy of education and athletics; (2) total student enrollment; (3) costs of education; (4) admission and graduation standards; (5) athletic potential of the high school graduates in the geographical area of the college. All of the above factors are constantly changing both absolutely and, even more, relatively among conference members. While such changes in athletic potential have been rapid in recent years, even greater divergencies will occur in the near future. This is especially true in the case of the privately endowed institutions. When compared to state institutions they will be at an even greater disadvantage in both cost of education and in their total enrollments.

Conference control usually requires agencies for enforcement of regulations: a detective force to discover violations, a police force to round up violators and a judicial body to assess penalties. These agencies frequently have grown in power in a manner similar to the Gestapo in Hitler's Germany. In their efforts to find violations and thus justify their existance they have not only built up larger, more expensive staffs, but also have resorted to methods which have become increasingly more questionable. These include entrapment, disguised identity, and other methods so outrageous that they would not be tolerated in a court of law.

Moreover, the judicial function has frequently been a travesty on justice as private, spiteful feuds and political logrolling have been the bases for many decisions.

Broad principles no longer guide most conferences. The rules are written more and more specifically and an increased number of interpretations of the rules becomes necessary as they become more minute in their specifications.

Conference control usually means control of schedules with round robin competition favored. The result is the pairing of teams which are uneven athletically, distant geographically and varying greatly in their educational policies and athletic ethics.

III. Institutional Control. Privately endowed schools can determine their own philosophy regarding education and extra-curricular activities. When the administration has determined a broad policy for conduct of intercollegiate athletics, there is no need to spell out details. Games will be scheduled with other institutions of similar beliefs. Suitable opponents will be found both near at home and at distances which will vary according to travel time permitted and financial factors. When for any reason an opponent no longer is considered suitable, that school will be dropped either temporarily until conditions right themselves or permanently if that seems best. Any or all of the following factors might be considered when setting up a schedule: (1) Degree to which the college administration controls athletics; (2) admission and graduation requirements; (3) total student enrollment; (4) types and amount of financial aid given to athletes; (5) quality of sportsmanship prevailing at games as evidenced by coaches, players and spectators.

Each institution must enforce its own regulations. While they may differ in some details, the important factor is the integrity of the institution. If there is any doubt whatsoever about its integrity, then that should be reason enough to discontinue athletic relations. There need be no explanations or recriminations, merely the statement that there will be certain schedule changes from time to time as they seem desirable. Where mutual trust and similar ideals prevail, worthwhile athletic relations will always prevail.

A SYNTHESIS: PHYSIOLOGICAL EFFECTS OF PHYSICAL EDUCATION WITH SPECIAL REFERENCE TO MEN'S COLLEGE SERVICE PROGRAM

Henry J. Montoye
Michigan State University

Mr. Chairman, Members of the College Physical Education Association, and Guests: I feel privileged and challenged by this assignment. There is considerable disagreement concerning the effects of exercise so it is not without some misgivings that I speak to you today. Yet, if we did not have differences of opinion, we might expect to learn very little from each other.

In the brief time available, no comprehensive review can be given, but perhaps a few points may be emphasized. At the onset, I should like to make an important distinction. Any successful coach or serious student of sports is cognizant of the many physiological adjustments which take place during training for athletic competition. Similar changes, although perhaps not to the same degree, might be expected in college students who have been relatively sedentary and then enroll in a strenuous course in physical education. For the most part, these effects have been demonstrated to be reversible when athletic training or regular vigorous exercise is discontinued. Both animal and human studies attest to the transitory nature of these changes which include such pehnomena as strength, size, and capillarization of skeletal muscles, stroke volume of the heart, strength and size of tendons and ligaments, and many others. The athletic coach necessarily is concerned with these changes because they represent the body's effort to become more efficient in the direction of greater physical performance.

Few departmental chairmen, however, would attempt to justify a required physical education program on the basis of physiological adjustments of this nature. Instead, when we are called upon to defend our requirement, we often grope for connections between exercise and health. It may be true that some of the transient physiological adjustments are healthful, but this inference is hardly justified without sufficient evidence. Unfortunately, our literature contains many vague implications about exercise and health. Some of our physiologists and physical educators have concluded that the only effect of regular exercise is to make the body better suited to carry on such exercise and that there are no real health benefits. I do not believe this is true despite the dearth of evidence to support my position. However, I need not try to "sell you" on exercise. We have done too much of this already. We meet like insurance salesmen to tell each other of the benefits of insurance. It is perhaps more important to focus attention on what has not been proved. The very excellent report by Dr. Seward Staley (The Illinois Story) which appeared in the Journal recently points up the need for research bearing upon this point.

When it was clear that the President of the United States had a real interest in the physical fitness of our youth, it also became discouragingly apparent that as a profession we had little fundamental knowledge about physical fitness. The service requirement in our universities and public schools has been challenged and will continue to be challenged as long as we maintain that everyone should engage in regular exercise. The same would be true of any other subject or program in our schools and colleges. What is more, we will not be able to continually justify this program by using the same arguments that were used decades ago. This is because our entire culture has changed. There are new and big problems in our society today which did not exist some years ago. Obviously, thinking people everywhere wish to mobilize all of the educational and other programs to solve these problems and to consequently make life happier. And what are the major problems of our society? Certainly the quest for peace or the fear of war is one of these. The increasing percentage of marriages which result in divorce and broken homes is another. The increasing importance of heart and circulatory diseases as a cause of death is still another. Juvenile delinquency might be added to the list and perhaps you can think of several more. Unless physical education contributes appreciably to the solution of one or more or these problems, it hardly is justified as a required program for all of our boys and girls.

When I stated rather bluntly a moment ago that we know so little about physical fitness, I was thinking about how little we know about the contribution of exercise to physical fitness in the sense of health. We might wade through pages and pages of the Research Quarterly and practically nothing helpful will be revealed. Oh, there are many little pieces of a puzzle, but they are not the big, important pieces. After twenty-five or thirty factor analyses of physical fitness tests, we are hardly any closer to the problem of the importance of physical exercise. I am not criticizing anyone in particular because I have certainly contributed my share of these relatively unimportant pieces of the puzzle. But I am convinced we will not find the important facts by intercorrelating push-ups and mile runs. We cannot isolate our discipline from all others and develop a language of our own or any set of tests which have meaning only to us and then, at the same time, turn around and require all college men to enroll in physical education for a year or two. I doubt that the defense of this requirement will be in the language of Sargent jumps and agility runs. When one talks to colleagues in other fields, these terms have very little meaning. But, for example, if one were to speak of blood cholesterol, a very large clinical literature is at hand on the topic, pages of nutritional research is available, and chemical and physiological journals contain numerous reports on the topic. We find these terms have meanings across the board.

Perhaps no test results in our field have received more publicity than the Kraus-Weber results, and some have taken the poor showing of American children as evidence for the need of more time, facilities, and financial support for physical education. Just about everyone has commented, either favorably or unfavorably, on the Kraus-Weber tests, so perhaps I likewise may be permitted a comment or two. It should be remembered that these simple little tests, despite the criticism which might be leveled at them, originated with a connection between exercise and health (that is, absence of low back pain). We should not be disturbed or surprised that these tests resemble clinical tests of medicine. We are not used to tests of this kind. We have been in the habit of thinking that twenty push-ups are better than ten, or forty sit-ups are better than thirty-five. We are convinced of this, but I am afraid we have convinced few of our colleagues in other fields. Medical clinical tests are not of this sort. Taking forty vitamin pills are not necessarily considered better than taking five. What are the minimum requirements for exercise? It is true that our college programs are not flooded with cases of low back pain and in the public schools the incidence is even less. However, in all probability, the potential cases of low back pain are there. Low back pain seems to be on of the disabilities associated with modern technology and easy living and is very likely on the increase in this country. Although it is not as dramatic as some other modern ailments, it contributes, nevertheless, to ill health, irritability, and a less enjoyable life. It has disturbed some that only a few people fail the Kraus-Weber tests. The answer to this criticism was pretty well expressed by Dr. Paul Hunsicker sometime ago in stating that no one has been very enthusiastic about discontinuing chest x-rays because only a small percentage of the cases x-rayed were positive. This association between low back pain, exercise, and posture needs further study to be sure, but the results look promising.

While we are on the topic of strength, another comment may not be altogether out of place. The interesting work of Hettinger and Mueller*, first brought to our attention by Dr. Arthur Steinhaus, is no longer new. If this work can be substantiated, it is to change our entire concept of strength development. If only a few six-second contractions per week are required for maximum muscular development, why, with the rather common practice of a three-period per week physical education program, is not more muscular strength in evidence among our young men? If one were to observe students at random and record by means of a stop watch how frequently and for how long various muscular groups are in or near maximum contraction, the paradox is pretty much resolved. While twenty-five to thirty minutes may be spent very profitably in skill development, maximum muscular contractions during this period may be quite rare for the average student. The recent work of Morgan and Adamson in the little volume Circuit Training indicates that in England, too, a sports program may not be assurance of much strength development. Some confirmation of Hettinger-Mueller's work may be seen in this monograph in that only a small amount of concentrated calisthenics supplemented notably the muscular development which would otherwise have taken place. Even though the evidence is not yet conclusive relating strength to health, perhaps we should consider seriously the inclusion of five minutes of strenuous exercise (requiring maximum effort) during each of our class periods. It may also be important that we point out to the young men, particularly in our college physical education programs, the minimum time needed to develop and maintain strength throughout life emphasizing that it is not a matter of hours but minutes per day. This is the first step, although admittedly it is no guarantee that when these men graduate from college even the few minutes necessary per week will be taken.

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*A list of references will be supplied upon request.

We might profit from a brief discussion of another series of events which appear on the surface to be a paradox. Some of us believe regular exercise will increase our life expectancy, yet all the well-controlled studies indicate no significant difference in longevity of our former college letter winners and their non-letter winner classmates (slides 1-3). Recent investigations in our laboratory throw some light on this problem. We found no great difference in the per cent of former letter winners who were active later in life (slide 4). What is perhaps just as important, they seemed to gain at least as much weight as the "non-athletes" in the years after graduation (slide 5). It appears clear, therefore, that we might find the healthful benefits of exercise only evident among those men and women who continue to exercise and these may or may not be the individuals who were on the varsity teams. It forces us, in addition, to take a serious look at what motivates people to be physically active. This may be the key to physical fitness, and yet, I have seen almost no serious effort in this direction. Perhaps this is a psychological question, and, hence, outside of my assignment.

But let us take a look at another of the problems of our generation—atherosclerosis — and discuss the possible role of physical exercise in this connection. This is but one disease, unquestionable the most important one, associated with weight control. We hear much talk these days about heart disease, blood cholesterol, exercise, and dietary fat. Perhaps a brief historical review of this problem might be in order. It might come as a surprise to some that atherosclerosis, the thickening of the walls of the aorta and coronary arteries with associated narrowing of the lumen, was observed over one hundred years ago to be the result of lipid deposits. Experimental atherosclerosis was demonstrated in animals by feeding a high cholesterol diet as early as 1910 by Stukkeu. However, relatively little research in this area was one until recently when heart disease had become so important as a cause of death.

The solution was at first though to be very simple — reduce fat intake. Supporting this work were the many surveys of diets of people around the world. Comparisons of countries or classes within a country in which the fat intake has been shown to correlate with coronary heart disease, I am sure, are familiar to you. In longitudinal studies, changes in fat consumption have been observed to parallel the incidence of heart attacks. Experimental studies have demonstrated that a high cholesterol diet can produce elevated blook cholesterols and atherosclerosis.

Several schools of thought have been developed to explain this relationship between lipids, atherosclerosis, and coronary heart attacks. Some believe that the problem is simply a matter of overfeeding, regardless of the source of calories. Others have blamed the trouble on the absolute intake of fat. Still others believe it is a matter of the percent of fat in the diet or the percent of saturated to unsaturated fat. However, none of these explanations has been satisfactory in explaining many of the exceptions which appear. Dietary control has proved to be ineffective in many instances. The role of hormones has not been clearly explained and almost no attention has been paid to exercise as it is related to the problem. What little has been done with regard to exercise, however, deserves comment.

Chailley-Bert and Fabre-Chevalier (1955) studied the concentrations of blood cholesterol immediately before and after exercise. The authors concluded that the increased concentration of cholesterol in blood serum following exercise may have been associated with the first steps in the metabolism of cholesterol. These authors also compared ten sedentary subjects in middle age with seven active subjects of approximately the same age. The active group had lower blood serum cholesterol values, and the difference between the two groups was quite great. Three sedentary middle-age workers (two females and one male) whose blood cholesterol was reasonably high were placed on a conditioning program consisting of walking or cycling. In all three, the blood cholesterols were appreciably lower after this conditioning. Mann reported the results of another study of three subjects. Doubling the calorie supply had no effect on serum lipids as long as the excess of energy was dissipated through exercise. When exercise was restricted and fat deposition occurred, the serum cholesterol concentrations were doubled. Keys and co-workers, on the other hand, found no effect of exercise on blood cholesterol in nine young men who were in caloric balance. Nevertheless, in their surveys of peoples around the world, they admitted that the amount of physical exercise regularly engaged in by individuals in various occupations was related in some instances to blood cholesterol (slide 6). This can be seen in the graphs comparing the 123 Bantu. In our laboratory, exercise was effective in lowering the high blood cholesterols in middle-aged men but had no effect on men with normal blood cholesterols (slide 7).

Animal work also points to a reduction of total blood cholesterol with exercise. This has been observed in chickens (Wong, Anderson, Kim, Liu, and Hawthorne). This same effect has been observed in cholesterol-fed rabbits. The entire problem, of course, needs further study, but the results to date look promising.

Another challenging problem is the effect of exercise on the muscle fibers and capillarization in the heart. The two studies reported in the literature are in conflict, one showing an increase and the other no effect. Recently some work was done on dogs in which certain coronary arteries supplying a portion of the heart were blocked to stimulate what occurs in man in a coronary heart attack. Then half of the animals were exercised and the other ones remained sedentary. The result was a greater collateral circulation developed in the exercised animals. In a study reported some years ago on rabbits, the common heart ailments in man were duplicated in animals by artificially impairing heart valve action or by restricting the flow of blood in one or more of the arteries. Heart enlargement in these rabbits was produced and histological examination revealed that the muscle fibers increased in size, but the number of capillaries did not nor did they observe any difference in size of the capillaries. This would indicate that although the muscle fibers have increased in size the blood supply per unit area has decreased. Whether or not similar results occure in normal animals with exercise needs further study.

Speed of movement and reaction time also deserve more attention. Speed in transportation has increased phenomenonly. In industry, machine operations are faster. All indications point to even further increases in speed in the future. This will place greater premium on speed of movement, reaction time, and alertness. How does participation in regular exercise affect these qualities? What is the transfer of reaction time in the handball court and reaction time behind the steering wheel? The age relationship with speed of movement and reaction is quite well known. A review of some previous work is illustrated in this slide (8). The work in our laboratory on this point is shown in the next slide (9). But does regular exercise delay this aspect of aging?

Obviously much remains to be done to establish scientific basis for physical education, but there are many challenging avenues of approach. The most significant findings will no doubt be the result of inter-disciplinary research. The techniques of thirty or forty years ago are no longer adequate. The utilization of isotopes, the latest histological techniques, photogrammetry, and other recent developments will characterize our work in the future.

SPECIFICITY VS. GENERALITY IN LEARNING MOTOR SKILLS

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In a review of trends in research on coordination and motor learning reported to this group two years ago, it was found that the factual data were establishing with increasing clarity that motor skills and large muscle psychomotor abilities are far more specific than had previously been realized (3). Our curriculum planners should become aware of the research findings — it is no longer possible to justify the concept of unitary abilities such as coordination and agility, since the evidence shows that these abilities are specific to the task or activity.

The present paper is concerned with the status of our knowledge of generality vs. specificity in the area of motor learning and transfer of training under carefully controlled conditions. In agreement with an earlier study by Lindeberg (6), a thesis project by Blankenship in 1952 (1) showed that a semester of streamlined gymnastics and "response to command" training emphasizing speed and versatility of varied motor actions failed to improve measured ability in a standardized choice reaction test designed to measure discrimination reaction and speed of movement (5). In this test, the subject either hit a ball with a table tennis paddle using a backhand stroke in response to visual stimulus A, or dropped the paddle and reached forward to grasp a ball in response to visual stimulus B. Adequate amounts of learning did occur in the test itself, thus establishing its justification for use in a transfer experiment.

Subsequently, a thesis study by Gaylord Nelson (7) showed that there was some generality of motor learning ability in ten-year old boys, since transfer of training could be demonstrated at this age if the interpolated task was similar to the tested motor act. However, at age fifteen, or at college age, no transfer could be detected unless the interpolated task was substantially identical with the original learning task. The test apparatus has recently been improved by additional timing equipment, so that reaction time and movement time are separated. Additional standardized motor learning tasks have been developed, namely, balancing on a stabilometer, caroming a light ball from a flat surface to strike a wall target, and the Lambert motor learning test. (Research Quarterly 22:50-57, 1951). Preliminary experiments with several other motor learning tests, e.g. dart throwing, had shown their unsuitability because of low individual difference reliability in the learning scores.

Three independent samplings of subjects have been studied with this group of motor learning tests. The results of one of these is available in a thesis by Edward Hart (2); the data from the other two have been analyzed and are being prepared for publication. The findings are essentially the same in all three studies.

In one of them, the sampling was intentionally hetrogenous in order to maximize the amount of intercorrelation between learning scores in the various tasks, under the assumption that there was such a trait as general motor learning ability. The odd-even trial reliabilities of the improvement scores were not high ($r = .41$ to $.82$), although they were adequate for the present purpose. The intercorrelations between learning scores in the different tasks ranged from $-.25$ to $+.24$, and none was significant even when corrected for attentuation due to unreliability.

Of particular interest is the intercorrelation between improvement in net speed of movement in the ball hit and the ball grasp, namely $r = .12$. The reliabilities for the improvement scores are .64 and .59 respectively. Fully corrected for attenuation the intercorrelation is still below $r = .20$. Yet these scores were obtained in the same units and on the same apparatus, involve a very similar task, and exhibit highly significant improvement ($t = 7.9$ and 7.3; $n = 40$). The initial raw time scores were about 50 per cent larger in the ball grasp (since the distance was about 50 per cent greater), but when converted to speed in inches per second there is no significant difference in either initial speed or improvement in speed in the two tasks. Adjusted learning scores (4) give similar results.

The theory of specific motor abilities implies that some individuals are gifted with many specific abilities and others have only a few (3); it follows that there will inevitably be significant correlations between total test battery scores when tests involving many abilities are lumped together. The general motor factor which thus makes its appearance is a sample, fundamentally, of how many specifics the individual has, and general motor ability does exist in this sense. This is not a question of definition; it is, on the contrary, a matter of basic theoretical insight into the problem. Failure to appreciate this distinction has beclouded our thinking in the past, and has erroneously led us to expect that practicing a motor skill would improve general coordination. However, there is no general coordination ability except perhaps in the very young (7). Repetition of a motor act improves the specific skill that is practiced, but individual differences in ability to profit by practice are specific to that skill and definitely do not predict the ability to improve by practice in some other skill. Provided that other factors such as differential motivation and differential physiological development are excluded in the design of crucial experiments, the data seem to permit no other conclusion. Transfer of improvement due to learning is also remarkably specific (7) (8).

Acceptance of a new point of view seldom occurs without trauma. This particular manifestation (i.e. motor specificity) has been on the horizon for years. We cannot continue to shrug it off; it is no longer distant, but in clear focus and must be recognized in our curricular philosophies. Let us recall that education gained in strength when it discarded the doctrine of formal discipline. We do not even need to search for a new set of values to justify the teaching of specific motor skills. Athletic games, sports and dance are already an integral and accepted part of the American culture.

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STUDENT ATTITUDES TOWARD THE UNIVERSITY SERVICE COURSE PROGRAM FOR MEN

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It is well known that college courses and instructors are rated by students in informal discussion before, after and between classes. But, it has been only recently that formal attempts have been made to have students judge their courses and instructors with the idea of improving both.

The service course program for men at the University of Oregon has no features unique from those found in many of the schools represented at this meeting. An average enrollment of eleven-hundred men attend some sixty class sections of twenty-nine activity courses each term.

As director of a typical university service program, the writer long felt the need to know more about the attitudes and opinions of the students in this program regarding the courses and their instructors than he was able to learn incidentally. Do they like or dislike their courses and why? What values do they seek in taking the courses and how well do they achieve these values? And what do they think about the instruction they receive? Do they judge it good or not and why?

Accordingly, in 1954 a simple questionnaire was devised for the purpose of collecting such information. 6960 students from 418 class sections of twenty-nine courses completed this questionnaire from 1954 to 1957. Free, frank expression was encouraged by keeping the questionnaire anonymous. The data so secured, and compiled with the kind assistance of the staff members constitutes the subject of this report.

Item I gave the students opportunity to check on a five point scale the degree to which they enjoyed each course. 6680, or ninety-six per cent, indicated moderate or thorough enjoyment. The remaining few indicated either a neutral attitude or moderate and thorough dislike. Clearly, these students enjoyed their service courses.

Now why did they enjoy these courses? Ninety-five per cent of the students gave one of four reasons as follows:

It was an interesting and enjoyable activity.
I acquired knowledge about the course.
The instruction in the course was good.
I improved my physical fitness.

The chief reasons for disliking the courses were:

The classes were too large.
Fundamentals of skills were overemphasized.
I was required to take the course.
The facilities were inadequate.

When asked whether or not they received any values from the courses, ninety-eight per cent answered affirmatively, while only two per cent indicated otherwise. Those who acknowledged some values were asked to describe them by checking as many expressions as necessary of nine listed in the questionnaire.

A considerable majority of the students, from sixty-two to eighty-six per cent, noted that the following six statements adequately described the values they achieved:

I became a better performer in the activity.
I increased my knowledge about the activity.
I had fun and relaxation from studying.
I improved my physical fitness.
I acquired new friends.
I acquired skill in a sport I can continue when I leave the university.

Eleven to forty-four per cent of the students checked the remaining three statements:

I overcame some of my awkwardness.
I improved my personal appearance.
I learned to control myself.

Obviously, these courses were valuable to the students. And, it might be noted here, that the values achieved in these courses reflect some objectives of a sound program.

Item IV called for an affirmative or negative reply to whether physical education courses would be elected if they were not required. Interestingly enough, in spite of the criticism often directed against such courses, ninety-four per cent replied affirmatively.

So far the commentary upon this subject has been limited, primarily, to the attitudes and opinions of the students toward the courses. The second part of the questionnaire was devoted to closely similar questions about the instructors.

Did the instructors know their subject-matter? Ninety-four per cent said they did and six per cent of the students said they did not.

How well did the instructors organize and present their material? The students were given an opportunity to judge this on a five point scale. Ninety per cent indicated the instructors, in this respect, did exceedingly well or above average. Eight per cent rated them as average, and the remaining two per cent judged this ability below average or very poor.

Apparently, the staff members were conversant with their subject-matter and knew how to use it.

Ninety-five per cent of the students stated the instructors evaluated and graded achievement accurately and impartially. This high percentage of accord was unexpected since twenty-seven per cent of these students received one or more letter grades of "C" or below during the time this material was collected.

Next, the students were asked to express whether or not the instructors gave help to individuals who needed it. 6064, or eighty-seven per cent, said they did. On the other hand, thirteen per cent of the students indicated such help was unavailable.

Item IX had to do with the respect the instructors showed for student opinions and questions. Again, a preponderant majority, ninety-five per cent of the students claimed their instructors respected the questions and opinions of the students.

Was the instructor interested in and enthusiastic about his teaching? According to the distribution of answers to this question, ninety-six per cent of the students agreed their instructors were so inclined.

The final item raised the question — Was your instructor generally effective in his teaching? Ninety-seven per cent of the students said their teachers were effective and, according to rank order of frequency they gave their reasons as follows:

He had a pleasing personality.
His personal appearance was good.
He knew his subject well.
He was a skilled performer.
He showed consideration for individual needs.
His classes were well disciplined.

In the light of the student attitudes, opinions and reasons recorded for the latter part of this report, surely good instruction was prevalent in these service courses.

In presenting the preceding report, let it be clearly pointed out, there has been no disposition on the part of the reporter to regard this as a carefully designed research project. Rather, let it be regarded as a promising pilot study which has already proved highly useful in the administration of the service program with which the writer is associated and has led to the development of more refined instruments and procedures for a projected investigation.

ETHICAL STANDARDS FOR PERSONNEL CONNECTED WITH INTERCOLLEGIATE ATHLETICS

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This paper deals with a phase of research into professional ethics for workers in physical education, health education and recreation, which is being carried on under direction of the Committee on Professional Ethics of the American Association for Health, Physical Education and Recreation under the general direction of the speaker as Chairman of the Committee.* The purpose of the research is to collect and analyze those incidents which involve ethically critical actions and for which principles of professional ethics should be established.

The critical incident technique as advocated by Flanagan is the research tool used. The procedure will resemble that used by the American Psychological Association which resulted in their publication, (Professional Ethics of Psychologists.[1]

Intercollegiate athletics along with other branches of athletics is a phase of physical education and as such is logically included in the work of the Committee. The present report on "Ethical Standards for Personnel in Intercollegiate Athletics" includes data from more than 1500 critical incidents collected in two ways. One group of incidents includes those collected through the efforts of the committee members in each District of the AAHPER. Among some one thousand incidents of ethically critical actions by personnel in health, physical education and recreation have been many relating to intercollegiate athletics. Another group of incidents has consisted of those collected for a doctoral dissertation[2] directed by the speaker and approved by the Committee on Professional Ethics. In this study, 1104 critical incidents were collected from a sampling of 300 colleges and universities under a plan which included incidents submitted by college presidents, directors of athletics, directors of physical education, head coaches of football, basketball, baseball, golf, tennis, swimming, and athletic trainers and game officials from the athletic conferences of the country.

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*The work of the Committee has been partially financed by the AAHPER and by a grant to the speaker from the Research Institute of The University of Texas.

[1] Professional Ethics of Psychologists, The American Psychological Association, Washington, D. C., 1953.

[2] Crawford, Melvin M., Critical Incidents in Intercollegiate Athletics and Derived Standards of Professional Ethics, Doctor of Education dissertation (micro-film, Austin, The University of Texas, 1957.)

In all, more than 2000 critical incidents have been collected, analyzed, and classified. In addition to submitting the incidents the respondents were asked to state what the ethically correct action should have been. With the aid of these opinions the National Committee will formulate statements of ethical principles which will be submitted to the AAHPER and all related organizations for final approval. Of the 2000 incidents received to date, more than 1500 have related to some aspect of competitive athletics mainly at the college and secondary level. However, the partial tentative report being given here relates only to 1150 incidents reported from situation in intercollegiate athletics.

Intercollegiate athletics is an important element in our culture. The contests are popular because they conform with our ideals of competition, physical vigor, and sportsmanship. It is natural that where such intense competition exists the desire to win and to receive the rewards of winning will lead some individuals, coaches, players, administrators and public, to actions which are not only unsportsmanlike, but are professionally unethical. Recognizing this, the American Football Coaches Association has established a Code of Ethics[3] and the various Intercollegiate Athletic Conferences and State Interscholastic Athletic Leagues have made rules to govern competition. However, such rules and ethical principles must continually be adjusted to meet the situations actually existing. It is the function of this paper to present a preliminary summary of the types of incidents in intercollegiate athletics reported so far and which may serve as a basis for statements of principles of professional ethics tentatively worded to fit the incidents reported. The more than 500 incidents relating to athletics in secondary schools can be classified under the same types as those used for incidents in intercollegiate athletics.

The frequencies of incidents as grouped in the major types and subtypes so far accepted are presented in Table I. It will be seen that of the incidents so far classified nearly 40 percent involved situations associated with officiating, and that most of these incidents involve actions by coaches. The ethical principles which should apply in these types of situations are obvious. More than three-fourths of the incidents involved actions at contests, mainly in football and basketball.

The ethically critical incidents not directly connected with an athletic contest are relatively few in number but nevertheless involve ethical principles important to professional status of coaches and others connected with intercollegiate athletics. Because the actions of all who are connected with athletics are so important to the physical and moral development of our youth, and because these actions are usually so apparent to participants and spectators, everything possible should be done to identify ethically critical actions and to establish and enforce good principles of professional ethics.

Sample statements of ethical standards follow:

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[3] American Football Coaches Association, Code of Ethics, 1953.

TABLE I

TYPES OF ETHICALLY CRITICAL INCIDENTS
IN INTERCOLLEGIATE ATHLETICS

TYPES OF INCIDENTS	FREQUENCY
1. Types of Incidents Relative to Officiating.	
1.1 Protested decisions of officials during game by entering field of play	158
1.2 Protested decisions of officials from the bench	138
1.3 Unsportsmanlike practices in relations with game officials before contests, at half or after contests	115
1.4 Unsportsmanlike actions by players and students in protesting decisions by officials	19
1.5 Game officials demonstrated questionable professional practices relative to coaches, players and spectators	20
TOTAL	450
2. Types of Incidents Relative to Opponent Relationships.	
2.1 Failing to observe unwritten rules of sportsmanship relative to games and contests	84
2.2 Unsportsmanlike actions in personal relations with opposing coaches and players	65
2.3 Unsportsmanlike actions by players and students toward opponents	16
TOTAL	165
3. Types of Incidents Relative to Rules of the Game.	
3.1 Violated rules by directing team from side line during game	87
3.2 Coached and encouraged players to do flagrant fouling	32
3.3 Used techniques which planned to beat the rules by illegal methods	19
3.4 Carried on iniquitous practices in rule violations	16
TOTAL	154
4. Types of Incidents Relative to Player Relationships.	
4.1 Undesirable conduct in personal relations with athletes	49
4.2 Condoned or encouraged unsportsmanlike conduct by players	48
4.3 Jeopardized the physical welfare of players	29
TOTAL	126
5. Types of Incidents Relative to Professional Relationships.	
5.1 Undesirable practices in relationships with the faculty and staff	44
5.2 Failed to adhere to the administrative policies of the institution	36
TOTAL	80

TYPES OF INCIDENTS	FREQUENCY
6. Types of Incidents Relative to Recruiting.	
6.1 Solicited athletes enrolled in another institution through unsanctioned procedures	40
6.2 Solicited the attendance of athletes through prohibited financial inducements	33
TOTAL	73
7. Types of Incidents Relative to Public Relations.	
7.1 Poor professional judgment in press interviews and in relations with reporters and sportscasters	38
7.2 Poor professional judgment in relations with the public	14
TOTAL	52
8. Types of Incidents Relative to Eligibility Rules.	
8.1 Used athletes ineligible under academic or athletic conference, NCAA rules	25
8.2 Tampered with records or falsified information concerning athletes	6
TOTAL	31
9. Types of Incidents Relative to Scouting.	
9.1 Scouted practice session of rival team	11
9.2 Questionable procedures in scouting or securing information	8
TOTAL	19
TOTAL NUMBER OF INCIDENTS OF ALL TYPES	1150

The statements of ethical standards which follow are illustrative of statements of principles of professional ethics for coaches, officials, administrators, and spectators which conform with opinions on correct ethical action in the case of specific critical incidents given by those individuals connected with intercollegiate athletics who submitted the critical incidents. The critical incidents referred to here are mainly those collected by Dr. Melvin Crawford, working on a project approved by the Committee on Professional Ethics of the AAHPER and tabulated and analyzed as described in his Doctoral dissertation*. The types of incidents are stated and numbered as they have been classified. The suggested statements of approved ethical action follow. Item numbers refer to the preceding table.

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*Crawford, Melvin M., Critical Incidents in Intercollegiate Athletics and Derived Standards of Professional Ethics, Doctor of Education dissertation, The University of Texas, 1957.

1.1 Protested decisions of officials during game by entering the field of play.
Ethical Standard - It is unethical to berate and argue with an official over his decision by entering the field of play.

1.12 Coach rushed out after an exciting play and grabbed or attacked the official.
Ethical standard - It is prohibited by the rules to grab or strike an official. The coach should refrain from any type of conduct which attacks or appears to attack an official.

1.14 Coach withdrew his teams from a contest in protest of officiating.
Ethical standard - It is unethical for a coach to withdraw a team from a contest as a protest of officiaing. The coach is obligated to complete any game in which he enters a team if the players are not incapacitated.

1.15 Coach went onto field of play during a game and accused an official of being dishonest or cheating.
Ethical standard - It is unethical to accuse the game official of cheating or being dishonest. The coach should not berate or accuse game officials in front of spectators. Objections to officiating are to be made in writing to the proper authorities.

1.21 Coach yelled and jumped up to protest official's decision.
Ethical standard - It is unethical for a coach or school representative to jump up from the bench at a game and yell or otherwise direct uncomplimentary remarks at official's decisions.

1.24 Coach made an effort to inflame the crowd and cause bitterness toward officials during a game.
Ethical standard - It is unethical to indulge in actions which incite spectators against the officials. The coach should act in a way to control spectator actions.

1.31 Coach verbally abused officials at half time or after the game.
Ethical standard - It is unethical to abuse game officials at intermission or after a game in the presence of spectators or otherwise.

1.33 Coach made pre-game attempts to prejudice or influence officials.
Ethical standard - It is unethical to hold a pre-game conference with officials in an attempt to create a prejudice against the opposing team or its members.

1.36 Coach used unethical practices in appointing and rejecting officials before the game time.
Ethical standard - It is unethical for the coach or other authority to vary from the prescribed rules of the conference in appointing or rejecting officials in an attempt to gain an advantage over an opponent.

1.41 Students protested decisions of officials by loud noise, booing, and throwing pennies and trash onto the floor during a game.
Ethical standard - It is the obligation of the college authorities and the athletic staff to insist that spectators observe the rules of sportsmanship and spectator ethics which require that officials be regarded as guests of both teams.

1.42 Players demonstrated strong feelings over decisions of officials.
Ethical standard - It is the obligation of the coach and college authorities to demand that players respect game officials and their decisions.

1.51 Officials showed poor professional ethics relative to coaches, players and spectators during and after a game.
Ethical standard - It is unethical for an official to perform any action verbally or physically against a coach, player, or spectator, or to solicit games with a college thru special favors or gifts to a coach or athletic director.

1.52 Officials failed to live up to their responsibilities in directing the game.
Ethical standard - It is the obligation of the official to direct the game according to the rules and to not show favoritism by ignoring any rule.

2.11 Coach employed unusual and unsportsmanlike tactics at start or during the game or contest as a means of disconcerting opponent or to gain points.
Ethical standard - Employing unusual tactics in order to gain an advantage is unethical, including such actions as listing wrong shirt numbers, boxing a runner, or appointing self as an official.

2.15 Coach failed to fulfill contractual agreements with opponents relative to conditions of the game.
Ethical standard - Professional ethics requies that all clauses in a contractual agreement concerning an athletic contest be fulfilled, unless changes are mutually approved by written or verbal agreement.

2.16 The athletic staff failed to provide adequate facilities or space for opponents.
Ethical standard - It is the obligation of the athletic staff of a college to provide, to the best of its ability, for space in the press box, on the field, in the dressing rooms, or in the stands for opponent teams and spectators.

2.17 Coach deliberately ran up a large score on an opponent.
Ethical standard - When an opponent is unable to put forth creditable performance it is poor sportsmanship and therefore unethical to run up a humilatingly large score.

2.23 Coach talked to and heckled players of opposing team to disconcert them during a contest.
Ethical standard - It is unethical to talk to or otherwise harass an opponent player while making a shot or other performance.

3.11 Coach instructed his team illegally from the side lines during a contest.
Ethical standard - It is unethical for a coach to instruct his players from the sidelines or bench in cases where such action is illegal.

3.2 Coach taught and encouraged players to do flagrant fouling.
Ethical standard - To teach players to deliberately violate the rules in any manner is highly unethical.

3.31 Coach taught, or encouraged, or permitted players to deliberately fake injuries in order to gain time or an advantage in a game.
Ethical standard - It is unethical to teach or to permit players to fake injuries, claim equipment needs repair or create other deceit in order to gain an unearned advantage in a game.

3.32 Coach taught the use of an illegal shift or false start to gain an advantage over opponent.
Ethical standard - Creating a devise or maneuver which is illegal or not specifically ruled against is a procedure which is unsportsmanlike and borders on the unethical and tends to put athletics in an unfavorable light.

3.34 Coach used practices which in effect violated rules relating to preseason practice.
Ethical standard - Rules relating to season practice schedules should be honestly respected and it is unethical to devise procedures which in effect do violate these rules.

3.42 Coach used illegal playing equipment arranged so as to be hidden.
Ethical standard - Deliberately using equipment on players which is prohibited by the rules is highly unethical.

4.11 Coach used profane language or ungentlemanly remarks in discipling or correcting players, and frequently before other players.
Ethical standard - The use of profanity, ridicule, or physical force in reprimanding players, or in teaching, is unethical and has no place in intercollegiate athletics.

4.16 Coach exhibited poor moral conduct in the presence of players.
Ethical standard - Ethical action requires that the coach and other officials set a good example of conduct in the presence of players and the public.

4.17 Coach recommended snap courses or changes in degree program not in the best interests of the athlete in order to insure continued eligibility.
Ethical standard - It is unethical to do anything which will sacrifice the academic welfare of a student in order to win games.

4.22 Coach condoned unsportsmanlike actions by players on the bench.
Ethical standard - It is the obligation of the coach to control the actions of his players while on the bench.

4.23 Coach failed to remove from the game a player making repeated and intentional fouls.
Ethical standard - It is the obligation of the coach in teaching sportsmanship to remove from play boys who repeatedly show poor sportsmanship.

4.24 Coach taught or encouraged dishonesty among players by appropriating college property or endeavoring to cheat in play.
Ethical standard - It is unethical to fail to discipline players who are dishonest in any way.

4.3 Jeopardized the physical welfare of players.
Ethical standard - It is unethical to administer a pain-killing substance to players to enable them to continue play, or to play an injured player, or to allow a player to resume play against a physician's advice.

5.11 A member of an athletic staff publicly criticized another member of his staff.
Ethical standard - It is poor professional ethics to publicly criticize a member of one's own staff or institution.

5.12 Coach brought pressure on a faculty member to make exceptions in marking athletes or to change marks given athletes.
Ethical standard - It is unethical for any member of a college staff to bring pressure on another staff member to change marks given students to show special favor to certain students.

5.13 A coach caused friction between another coach and his players.
Ethical standard - A coach should uphold the action of a fellow coach relative to players, or refer the matter to a superior.

5.15 The athletic staff failed to cooperate with the physical education staff in the use of facilities.
Ethical standard - College facilities belong to the institution and must be shared to the mutual advantage of all students. Policies relative to the use of facilities should be formulated by the proper authorities and observed by all.

5.21 Coach failed to fulfill terms of his contract or negotiated in an unprofessional manner with another institution.
Ethical standard - Contracts are supposed to bind both parties there-to and it is unethical to fail to abide by the contract except in case of being released by the other party.

5.22 Coach failed to meet classes assigned to him.
Ethical standard - It is unethical to fail to perform assigned duties simply because circumstances make it possible to do so without punishment.

5.24 Athletic staff member misappropriated funds or equipment.
Ethical standard - Dishonesty in the use of athletic or institutional funds or equipment is highly unethical.

5.25 Coach used political pressure to gain special consideration for self or for his players.
Ethical standard - It is unethical to use the influence of outside and unauthorized persons or influence to gain ends not deserved and not obtainable otherwise.

5.26 Coach failed to attend faculty meetings.
Ethical standard - The coach is a member of the college staff and professional ethics requires that he participate in the functions of the institution including attendance at faculty meetings.

6.1 Members of the athletic staff solicited athletes enrolled in another insitution through unsanctioned procedures.
Ethical standard - It is unethical to try to recruit students enrolled in another institution, or to induce athletes to change from one institution to another.

6.12 Coach changed positions and persuaded some of his players to change to the new institution.
Ethical standard - The academic progress of students may be disrupted when they change colleges and for this reason it is unethical to persuade athletes to change schools, and thereby possibly handicap the school they leave.

6.13 Coach misrepresented the athletic scholarship available or made unauthorized promises to athletes.
Ethical standard - It is unethical to misrepresent conditions or to fail to abide by conditions told to prospective athletes as an inducement to enroll in a college.

7.11 Coach made statements to the press criticizing game officials as being responsible for a loss, or made statements derogatory to an opposing team or coach.
Ethical standard - Good sportsmanship and professional ethics require that a coach refrain from trying to alibi a loss by criticizing game officials or the opposing team or its coaches.

7.13 Coach failed to cooperate with the press thru courteous treatment and provision of facilities available.
Ethical standard - Ethical action requires the cooperation with others even though displeased with their actions.

7.21 Coach became involved with spectators in unprofessional actions, and otherwise made a poor impression with the public thru public utterances derogatory to athletics, or to the college or staff.
Ethical standard - Professional ethics demands that the coach maintain the integrity and dignity of the coaching profession in relations with spectators and the public.

8.1 Coach used athletes who were ineligible under rules of the conference.
Ethical standard - It is unethical to fail to abide by all rules of the athletic conference in which the coach is located.

9.22 Coach engaged in unapproved scouting practices including sending a representative to scout an opponent without notifying the school being scouted.
Ethical standard - Professional ethics requires that all personnel connected with athletics abide by the scouting regulations and all other rules of the athletic conferences in which they operate.

THE PENNSYLVANIA STATE UNIVERSITY STUDIES ON STRENGTH DEVELOPMENT, MAINTENANCE, AND RELATED ASPECTS

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Some ten studies related to strength development and maintenance have been complete at The Pennsylvania State University. The first were done back in 1952 and were stimulated by Karpovich and Zorbas'[4] reports of the greater speed in weight lifters than in non-weight lifters. Later studies grew under stimulus of the extensive work of Hettinger and Muller in Germany and Hellebrandt and others in this country.

Speed and Accuracy

Hairabedian[3] completed a study (1952) in which he attempted to determine whether an increase in strength of college men produced by weight training would affect their speed of movement. His test of speed was the time it took the subject to turn a handle nine inches in length, in a frontal plane and in a clockwise direction for twenty-four complete revolutions. Control group A of fifteen students did not participate in activity; group B of twenty-four subjects participated in a class in volleyball; and the experimental group X of twenty-four subjects underwent regular, progressive weight training for thirty minutes, three times per week for six weeks. The exercises emphasized the arms and upper torso. At the end of the six-week period, the control group showed no significant gain in strength or in speed. The volleyball group showed very little increase in strength, and a loss in speed ($t = 2.20$). The experimental group showed a significant increase in strength ($t = 7.74$) and a significant increase in speed ($t = 2.75$). The decrease in time to turn the twenty-four revolutions amounted to approximately four per cent.

Donaldson[2], working with Hairabedian, tested the same groups, before and after the training period, in a skill involving a fencing lunge at targets (one in front and one overhead) by use of a foil. He reported improvement in this perceptuo-motor skill significantly greater on the final test for the weight-training group than for the other two groups.

In 1954, Tominaga[10] attempted to determine the effects of progressive weight training upon speed and accuracy in the pitching of baseballs. To measure accuracy a huge canvas target with circular markings was erected exactly 60.5 feet from the pitching spot. Baseballs dipped in powdered magnesium carbonate were thrown against the target. The impressions caused by the throws were scored for accuracy.

Speed was recorded by a special electronic device which measured to 1/1000 of a second. The ball, as it was released from the hand, brushed cords which activated the "Start" switch allowing the timing pulses from the audio-oscillator to be fed to the counter and recorded. The ball contact with the target stopped the counter.

The procedure involved:

1. Giving an experimental group (X) and a control group (C) an initial test for accuracy and speed in pitching a baseball.
2. Having group C attend a six-week Sports Lecture course while group X participated in a rigidly controlled weight-training course.
3. A final test on accuracy and speed in pitching, given at the end of the six weeks.

Tominaga reports: neither significant improvement in speed and accuracy of pitching nor significant loss was found in either group in spite of the differing conditions during the six weeks.

In 1957, Meisel[7] attempted to determine the effect of a weight-training program on the maximum speed of running a distance of ten yards after a fifteen yard start. The training consisted in progressive weight-resistance exercises and was aimed specifically at developing the strength of the legs. He used fifty-two subjects in each of two equated groups. The equating was based on the ten-yard speed test.

The preliminary tests included the measurement of leg strength by a back and leg dynamometer as well as the speed test. The speed-of-running test was conducted with an apparatus which triggered one micro-switch to start a chronometer at the end of the first fifteen yards of the sprint and one micro-switch to stop the chronometer at the completion of the twenty-five yards.

The experimental group trained with standard weight-training methods. They used bar bells and weighted shoes and worked toward ten repititons of each exercise.

Training sessions were conducted Monday, Wednesday, and Friday each week for a period of six weeks. At the end of the training period, all subjects were tested again using the same procedures as in the preliminary testing.

Meisel found a significant increase of strength from the weight training as compared to his control group. As to the speed factor, he concluded: the program of progressive weight resistance exercises caused a loss of speed in running a distance of ten yards at maximum speed. This decrease in speed was statistically significant at the two per cent level of confidence.

Yankosky[11] has just completed a study of the effect of weight training on preferred-arm and preferred-leg extension and flexion speeds. He included sixty-eight subjects, thirty-eight in the weight training classes and thirty in various other activities of the Required Program. The experimental period included eleven weeks of training plus the time for pre- and post-testing. Special exercises, such as the weighted boot for leg contraction, were prescribed to insure specific exercise per muscle group. The speed measurements were made by use of a special apparatus involving a micro-switch release to start the chronoscope at the initiation of the movement, and an "electric eye" to stop the chronoscope as the moving limb interrupted the light beam.

Yankosky found great variability but no statistically significant group change in either group. The final mean for the activities group of thirty had changed very little, being slightly slower in some movements and slightly faster in others. The weight-training group mean for each of the four movement speeds was less; i.e., movement speeds were all slightly faster. However, none of the decreases in mean movement times were great enough to be statistically significant. The t-ratios of the differences were: arm extension, ($t = 1.4$); arm flexion, ($t = .83$); leg extension,($t = 1.0$); and leg flexion, ($t = 1.0$).

Strength and Fine Motor Skills

Buckiewicz[1] attempted to determine the effects of systematic weight training on certain fine motor-skill performances involving hand and finger dexterity.

His control group had forty-six subjects and the experimental group of weight-training subjects had fifty-five. The weight-training period of the experimental group extended for six weeks, three times a week, thirty-five minutes a period. The control group, of course, had no formal strength exercises.

The weight-training exercises included shoulder, arm, and hand exercises. The hands and fingers were put through daily exercises with a hand-grip developer (two handles to be squeezed against a strong spring), and the winding of a cord around a wooden bar which turned against considerable resistance. The bar had about the diameter of a broom handle and was gripped and turned by the fingers of the subject.

A fine motor-skills test battery was administered to both groups before and after the experimental training period. The tests involved such skills as threading tiny beads, assembling one-half inch nuts and bolts, placing small washers on pegs, etc.

Buckiewicz found: an increase in grip strength statistically significant beyond the one per cent level of confidence for the experimental group; and significantly greater improvement by the experimental group than by the control group, in scores on the four fine-motor-skill tests.

Effectiveness of Various Strength-Development Methods

Taylor[9] attempted to determine the training value in terms of strength development of four different training methods all employing static contraction only.

The four training methods used were: (1) maximum pull held for twelve seconds; (2) maximum pull held for six seconds; (3) two-thirds of possible maximum pull held for twelve seconds; and, (4) two-thirds of possible maximum pull held for six seconds. The body movements involved were dorsal-flexion of the right wrist and outward-rotation of the right hip.

The forty-eight experimental subjects and the twelve control subjects who participated in the experiment were enrolled in a three-classes-per-week beginners' course in golf instruction as a part of their activity in the required physical education program. The static contraction training was in addition to these regular classes. During the period of training of the experimental groups, the maximum contractile pull was re-determined twice because the individuals' maximum pulls changed as training progressed. These two measures were in addition to the pre-training and post-training measures.

The control group was used to determine whether the static contraction procedure was the causal factor in the strength increase. In every measure, there was a higher final group mean for the experimental group than for the control group although in one case the difference was only 2.58 pounds more for the experimental group – a difference with a t-ratio of only 1.15.

Taylor concludes: (1) one of the training methods for the thigh rotation movement did not produce a statistically significant improvement (the two-thirds of maximum for twelve seconds); all others produced significantly more improvement than the control group achieved, but did not differ significantly among themselves; (2) no one of the four static-contraction methods was significantly superior to any of the others for the purpose of increasing the contractile strength of the muscles involved in the movement of right wrist dorsal-flexion.

Lorback[5] attempted to determine the relative effectiveness for production of strength and muscle girth of static contraction for six seconds of two-thirds maximum, and weight training involving successive repetition of contractions against overload. He equated two groups of thirty subjects, each.

The muscle groups tested were those involved in right and left hand grip-strength, neck flexion, right and left elbow flexion and extension, right and left knee flexion and extension. Grip strength was tested by use of hand dynamometers; knee extension by a back and leg dynamometer; neck flexion, elbow flexion and extension and knee flexion by use of a pulling assembly and a tensiometer. The girth of each subject's neck, right and left biceps, thighs and calves was measured.

The progressive weight-training group trained with resistance loads which required them to exert their full efforts and work toward completion of ten repetitions for each muscle group. For the hand flexion exercise, this group squeezed hand exercisers as hard as possible for ten repetitions. For neck flexion, repeated contractions were carried out against a weight attached to a harness which fitted over the head. For elbow flexion and extension, biceps curls were practiced with a bar bell. For knee flexion and extension deep knee bends were done with a bar bell resting on the shoulders. Each subject in both groups trained three times per week.

On the basis of fourth-week tests, the resistances for the static contraction group were adjusted to two-thirds of the new maximum. At the end of the eighth week of training, all subjects were again tested using the same procedures as in the preliminary test.

Lorback found a significant increase in strength and muscle girth in both groups, but found the two methods approximately equal in effectiveness as measured by his test.

One point that should be noted about Lorback's study, as in others of similar design, is that the individuals of the static-contraction group actually exercised only slightly over one minute per session (six seconds times eleven movements) while the weight-training group exercised rather continuously through a thirty-minute period. This fact is particularly pertinent in the study which follows.

Effect of Strength Development on Endurance

Swegan[8] attempted to determine the effect of static contraction and standard weight-training procedures on endurances. One method utilized static contraction for six seconds held against two-thirds maximum resistance and the other involved progressive-resistance weight-training methods of working toward a certain number of repititions.

Sixty subjects were divided into two closely equated groups on the basis of a series of preliminary tests.

The preliminary tests consisted of muscular endurance tests on right elbow flexion and extension, left elbow flexion and extension, right knee flexion and extension, and left knee flexion and extension; and a bicycle ergometer test of endurance.

These endurance tests involved the performing of each movement with a weight at a predetermined rate. The rate was established by synchronizing the body movements with the beats of a metronome. The bicycle test consisted of riding a stationary bicycle at a predetermined rate, with the resistance to the pedalling held at a constant tension. In all of the endurance tests, endurance was defined as the ability to persist in a specific movement at a predetermined rate.

Training sessions were conducted three times per week for a period of ten weeks. At the conclusion of the training period, all subjects were again tested using the same procedures as in the preliminary testing.

Swegan concludes: muscular endurance, based on composite scores, was increased significantly after the weight training by each method used in the experiment. Statistically significant differences between the two groups in amount of endurance improvement were not obtained in any of the eight movements tested.

However, the static contraction training methods appeared to be somewhat more effective for developing endurance in knee extension than did the standard method of deep knee bends. The significant improvement of the static contraction group in the bicycle-riding test, which involves the extension movement primarily, and their somewhat greater improvement in the endurance knee-extension (movements with weights at a set rate) suggest that this conclusion may be justified.

Strength Maintenance

Lyne[6] has just completed a study of the frequency of static contraction necessary for the maintenance of a newly achieved strength level. He compared three methods for effectiveness in maintaining a strength level acquired from eight weeks of progressive-resistance weight training. The three methods were: exercise once weekly, exercise one every two weeks, and exercise once every three weeks.

The exercises were static contractions involving the flexion and extension of the preferred arm and the extension of both legs, with the respective muscles contracting at maximum strength for a period of six seconds per muscle group.

He used forty-six subjects chosen from the freshmen and sophmores in the required physical education program. His total experimental time extended through one semester. The age range of his group was seventeen to twenty-five years.

Lyne first put his subjects through progressive weight training for eight weeks, three periods per week. His procedure involved working toward ten repetitions of each exercise. His exercises were directly prescribed for development of specific flexors and extensors and included two-arm curl, two-arm overhead press, and deep knee bends or "squats."

At the conclusion of this preliminary rapid strength development period, he measured arm strengths with a cable tensiometer and leg strengths with a leg dynamometer. Then he enrolled his group in classes involving little exercise of the muscles he was measuring; namely, classes in Hunter Safety, Sports Lecture, Bait Casting, and Golf Instruction. In addition, he met his subjects at specified times for static-contraction training for the rest of the semester.

During these final weeks of the semester, the subjects were divided into four groups according to frequency of assigned exercise; namely: a control (12s), once-weekly (12s), once-every-two-weeks (11s), and once-every-three-weeks (11s).

His experimental factor was the static-contraction exercise for six seconds at the specified times per group.

Lyne found:

Control group - great individual differences but a significant decline in strengths (decline ranged from eight to eleven per cent of pretest strength).

Once-weekly-exercise group - significant increase in strength (six to thirteen per cent increase over pretest).

Every-two-weeks group - increase ranged from .2 to 3.3 per cent and was not statistically significant.

Every-three-weeks group - very slight loss. Apparently this type of exercise spaced at three-week intervals was not sufficient to maintain the strength levels.

Discussion

Numerous studies elsewhere as well as at The Pennsylvania State University have indicated that strength development has group functional value in many aspects of performance, and very few deleterious group effects.

One aspect which stood out in all these studies was the great individual variation under the same experimental conditions. Although strength training produced (or was accompanied by) many favorable changes in group means for various functional aspects of performance, almost every group contained individuals in whom the reverse effect was found. The range of effects of the experimental factor was so great in each experiment that we now doubt the advisability of prescribing any set procedure for any individual except tentatively; and on an experimental basis with careful observation to determine whether he needs a change in prescription.

Another aspect is the subjectivity of any strength or endurance measure. Whether maximum strength or maximum endurance be measured by a tensiometer or a dynamometer, by weights lifted, or by persistence on a bicycle, the subject's "maximum" is affected by his degree of motivation, his background of punishing experience, and his willingness to endure the pain of "all-out" effort.

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STUDIES OF TRANSFER OF LEARNING IN GROSS MOTOR SKILLS

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Educational programs in general are founded on the premise that human being have the ability to transfer that which they learn to subsequent situations. This is evident in everything from the early training of children in the home to the classical college curriculum. The problems of transfer of learning are vast and exceedingly complex. Experimentation in the area of motor learning has been carried on chiefly in psychological laboratories and has involved the learning of fine motor skills. It is expected that certain of these findings also apply to the learning of gross motor skills. However, two questions still appear to be paramount: (1) To what range of situations will a particular learning transfer? and (2) What instructional methods promote the greatest degree of transfer of learning?

Statement of Problem

The purpose of this investigation was to study transfer of learning in gross motor skills which involve some similar elements and patterns. The problem was divided into three general areas and was approached by: (1) Determining the extent of transfer of learning between two activities which involve some similar elements and patterns when these skills are learned at the same time; (2) Determining the extent of transfer of learning between two activities which involve similar elements and patterns when these skills are not learned at the same time; (3) Determining the extent of a possible transfer of learning when one of the objectives is the purposeful teaching for transfer.

Procedure

In order to carry out the purposes and objectives of the problem, six skills were selected and paired for study. Skills one and two, three and four, five and six were paired.

SKILL ONE. BADMINTON VOLLEY AGAINST A WALL

The subject stood behind a line drawn six feet from a handball court wall and stroked a plastic shuttlecock against the wall using either a forehand or backhand stroke. The shuttlecock had to be hit between the height of the subject's shoulder and ankle. If the outlined sequence of activity was not followed, only the strokes meeting the listed qualifications were counted. When the shuttlecock fell on the floor, the subject retrieved it and began again. Scores were cumulative. The number of successful hits made in thirty seconds constituted a subtotal score. Each day's total score consisted of five thirty second periods of activity, or five subtotal scores.

SKILL TWO. TENNIS STROKING AGAINST A WALL

The subject stood behind a line drawn twenty feet from the wall and stroked a tennis ball after one bounce; either the forehand or backhand stroke was allowed. A dark colored line was drawn across the front wall of a handball court three feet above the floor. A restraining line twenty feet from and parallel to the base of the wall was placed on the floor.

Two tennis balls were provided for each subject as he took the test. A brown cardboard box, twelve inches long, nine inches wide and six inches deep, containing ten extra balls, was placed on the floor at the junction point of the restraining line and the side wall. The box containing the extra balls was placed to the left side for right handed subjects and to the right side for left handed subjects.

The method of scoring followed the same procedure as that used in badminton; only those hits were counted that met the required specifications; that is, hitting of the front wall only, above the three foot line, and returned by the subject from behind the twenty foot restraining line.

SKILL THREE. VOLLEYBALL TAP FOR ACCURACY

The volleyball was put in motion by having it run down a trough located thirteen feet above the floor. The ball was placed in the trough at the same place each time from a balcony overlooking the basketball court. As the ball rolled off the trough, the subject jumped in the air and tapped the ball over a standard eight foot high volleyball net to a target lying flat on the floor on the other side of the net. The target was an eight foot square of canvas lined with concentric circles six inches apart. A value of seven was given to hits within the center circle and each succeeding circle from the center was assigned one less. Forty-two inches away from the center of the target the score was zero. The target was placed fourteen feet from the net to the inside edge of the canvas. The subject made five taps with the right hand and five with the left hand in order to complete one series. Five series were scored to complete each day's activity.

SKILL FOUR. BASKETBALL TIP FOR ACCURACY

In order to control the action of the ball, the basketball was also put in motion from the trough. Since skills three and four (volleyball and basketball) have characteristics believed to be transferable, it was considered necessary to supply the same kind of controlled stimulus in both skills. The trough method of putting the ball in play met this requirement. As the ball came off the trough, the subject jumped and attempted to tip it while in the air into a regulation basketball basket. Each subject complete twenty-five tips from the right side with his right hand each day and 25 tips from the left side with his left hand each day.

Subjects received scores when the ball was tipped during the jump and these scores were assessed on the following empirical basis:

Three points for each basket.
Two points for hitting any place on the upper side of the rim.
One point for hitting the backboard any place above the rim level or the side of the rim.

Total for the day =

SKILL FIVE. TRACK STARTING STANCE

The subject used the conventional track starting procedure and ran straight ahead for five yards. On the command "take your marks," the subject assumed the starting position crouched on one knee, hands just behind the starting line, and eyes looking down the track. On the signal "get set," the subject raised his hips until they were slightly higher than his shoulders. The command for action was the clapping of two clap boards which were used to start the clock automatically.

Both skills five and six (track and football start) were performed in the gymnasium on one end of the basketball floor. Subjects were attired in regulation gymnasium suits; powdered rosin was used on the floor to prevent slipping. A strip of adhesive tape was used for the starting and finishing lines. The rod described below was directly over the finish line.

The electric timing device used for scoring was accurate to the nearest one-hundredth of a second. The clock was started by clapping two boards together. The boards were lined with sheet copper to which electric wires were attached. As the sheets of copper came together, the clock started and continued until the runner broke the electric circuit which was controlled by a rod, waist high, across the finish line. This rod was attached to a hinge which controlled a micro switch. When the rod was moved on the hinge, the micro switch cut the current and stopped the clock. Time was recorded to the nearest one-hundredth of a second. Each day's total score included the average of five timed trials following the usual warm-up and teaching procedures.

SKILL SIX. FOOTBALL STARTING STANCE

The starting procedure for this skill was the same as that which was used for the track start. Subjects used the crossover step and ran laterally for five yards. The crossover step is made by taking the first step with the leg farthest from the lateral running direction. If the right foot was used in the forward position, the subject ran to the right. If the left foot was forward, he ran to the left. Scoring was the same as that used in the track start.

Design of the Experiment

The experimental design of the study is shown in Table I. This table contains the schedule of skills and groups of subjects. It was necessary:

1. To design the experiment so that a series of skills could be repeated under different arrangements of order and method of teaching. This required three groups of subjects.
2. To lessen the effects of prior experience. This was done by subdividing the groups for counter balancing purposes in the skill sequence and also in the three group arrangement.
3. To design the study so that the time involved in carrying out the experiment was not excessive. Three groups of subjects were selected. One group of thirty subject was studied during each of the three quarters of the school year.

TABLE I
SCHEDULE OF SKILLS AND GROUPS OF SUBJECTS

Group	No transfer taught		With transfer taught		Taught at same time	
	Section A	Section B	Section A	Section B	Section A	Section B
I	1	2	3	4	(No transfer taught)	(Transfer taught)
	2	1	4	3	5 & 6	6 & 5
	With transfer taught		Taught at same time		No transfer taught	
	Section C	Section D	Section C	Section D	Section C	Section D
II	2	1	(No transfer taught)	(Transfer taught)	5	6
	1	2	4 & 3	3 & 4	6	5
	Taught at same time		No transfer taught		With transfer taught	
	Section E	Section F	Section E	Section F	Section E	Section F
III	(No transfer taught)	(Transfer taught)	3	4	6	5
	1 & 2	2 & 1	4	3	5	6

Numbers 1, 2, 3, 4, 5, and 6 represent the skills used in the study.

SUBJECTS

Utah State University is located at Logan, Utah, and students are predominantly from the surrounding Intermountain area. The majority of students are from the state of Utah.

Subjects who were used in this study were Utah State University boys selected from Physical Education classes. Selection was necessary in order to meet the requirements of the study. If a subject had had a great deal of prior experience in certain sports related to some of the skills, this condition might have affected the learning of the related skill. For this reason any subject was eliminated if he had been a sprinter on a track team, played competitive tennis or badminton or had taken classes in either of the above mentioned sports.

Additional selection of subjects was made because it was considered important to include representatives of all four years of the college population in the study; therefore, students from certain classes were selected to give stratification to the subjects. Each of the six groups finally selected included fifteen subjects randomly sampled after stratification and elimination of certain subjects who had had prior experience.

Each major group (I, II and III) consisted of thirty boys, these groups were subdivided into Sections A and B from Group I, Sections C and D from Group II, and Sections E and F from Group III. The subdivisions each contained fifteen boys; subdivisions were used for counter-balancing purposes. This arrangement made it possible to reverse the order of learning the skills in each subdivision.

Each subject proceeded through the experiment three different days in one week and each skill was practiced three different days before the skill was completed. Each skill required approximately thirty minutes to complete during each session. A total of six weeks was necessary for the subject to complete all six skills. The various groups performed the paired skills under varied conditions so that three different orders and two different methods of teaching were included. The methods of teaching involved the use of deliberate teaching for transfer of learning as an objective and no use of this objective. The orders of teaching the skills included (1) the teaching of one of the paired skills followed by the other skill; (2) reversing the order of teaching the skills; and (3) teaching the two skills alternately.

Methods of Teaching for Transfer of Learning

When teaching for transfer of learning was a part of the experimental design, carry-over possibilities were taught both at the time of learning the initial skill and upon learning the subsequent paired skill. The teaching of the respective skills involved a verbal explanation of general and specific principles found in the skills. This was followed by a brief demonstration of the skill. The majority of principles which were chosen were specific and applied directly to the respective paired skills. However, a few principles were general and applied to all skills. All subjects were given the same principles. The importance of the learnings being transferred to other activities was pointed our specifically to the appropriate experimental groups. They were told that there were common elements and patterns of movement in the different activities, and specific examples were given in all of the paired skills. For example, subjects were told that staying low in the track start also applied to staying low in the football stance start, and if they learned it in one skill it should help in other skills. These cases of similarity were emphasized to all subjects in situations where the purpose of the experiment required the deliberate teaching for transfer of learning.

Examples of the general principles which were taught are:

1. Be aware of transfer situations. Look for similar elements and patterns of movement in activities.

2. Think about the possibilities of transferring learning from one activity to another.

In order to carry out the purposes of the experiment, only those principles which were deemed applicable by the investigator to both paired skills were taught.

Measurement Techniques

Data were derived from two scoring techniques:

(1) the use of third day scores (a measure of final learning), and

(2) the difference between the first and third day scores (a measure of improvement).

Statistical comparisons of the six groups of subjects were made by subjecting the data to analysis of variance.

Summary of Findings

Analyses of the source of variation are presented for each skill and each scoring method, in tables II and III. The data were treated and analyzed on the basis of differences found in the method of teaching, the order of teaching and the interaction between method and order of teaching the six paired skills.

TABLE II

ANALYSIS OF VARIANCE – FINAL DAY SCORES

Skill	Source of Variation	d.f.	Sum of Squares	Mean Square	F
1 (Badminton)	Order	2	1012.35	506.17	.898
	Method	1	82.17	82.17	.146
	M x O	2	842.23	421.11	.747
	Error	84	47353.87	563.71	----
	Total	89	49290.62		
2 (Tennis)	Order	2	251.36	125.68	.813
	Method	1	476.10	476.10	3.083
	M x O	2	1652.59	826.29	4.350
	Error	84	12972.94	154.44	----
	Total	89	15352.99		
2 (Volleyball)	Order	2	5925.9	2962.9	2.24
	Method	1	1337.8	1337.8	1.01
	M x O	2	6056.7	3028.3	2.29
	Error	84	110898.7	1320.2	----
	Total	89	124219.1		
4 (Basketball)	Order	2	287.6	143.8	.40
	Method	1	321.1	321.1	.90
	M x O	2	2318.2	1159.1	3.26
	Error	84	29831.6	355.1	----
	Total	89	32758.5		
5 (Track)	Order	2	.0699	.0349	3.83
	Method	1	.0072	.0072	.79
	M x O	2	.0222	.0111	1.22
	Error	84	.7712	.0091	----
	Total	89	.8705		
6 (Football)	Order	2	.0144	.0072	.80
	Method	1	.0003	.0003	.33
	M x O	2	.0555	.0277	3.08
	Error	84	.7563	.0090	----
	Total	89	.8265		

TABLE III
ANALYSIS OF VARIANCE
DIFFERENCE BETWEEN FIRST AND FINAL DAY SCORES

Skill	Source of Variation	d.f.	Sum of Squares	Mean Squares	F.
1 (Badminton)	Order	2	244.16	122.08	.594
	Method	1	24.33	24.33	.118
	M x O	2	1692.90	846.45	4.120
	Error	84	17256.44	205.44	----
	Total	89	19218.06		
2 (Tennis)	Order	2	81.42	40.71	.554
	Method	1	0	0	3.544
	M x O	2	520.80	260.40	----
	Error	84	6170.93	73.46	----
	Total	89	6773.15		
3 (Badminton)	Order	2	2152.8	1076.4	1.53
	Method	1	834.1	834.1	1.18
	M x O	2	520.1	260.0	.37
	Error	84	59193.4	704.7	----
	Total	89	62700.4		
4 (Basketball)	Order	2	20.6	10.3	.07
	Method	1	67.6	67.6	.46
	M x O	2	292.0	146.0	.99
	Error	84	12363.4	147.2	----
	Total	89	12743.6		
5 (Track)	Order	2	.0151	.0075	5.00
	Method	1	.0160	.0160	10.67
	M x O	2	.0015	.0007	.47
	Error	84	.1246	.0015	----
	Total	89	.1572		
6 (Football)	Order	2	.0166	.0083	1.30
	Method	1	.0241	.0241	3.76
	M x O	2	.0088	.0044	.69
	Error	84	.5376	.0064	----
	Total	89	.5871		

FINAL LEARNING (FINAL DAY SCORES)

Method of teaching. The mean scores were found to be higher in all six skills when transfer was not a deliberate objective of teaching. In five of the six skills, no significant differences were demonstrated; however, in skill two, the tennis skill, the difference was significant at the 10 per cent level of confidence.

Order of teaching. Tennis appeared to have some favorable effect on learning the badminton skill, but the tennis skill was best when learned first. Differences were not found to be significant and the hypothesis that these differences can be attributed to chance could not be rejected.

The learning of the basketball skill prior to learning the volleyball skill seemed to contribute to learning the volleyball skill, but differences were not found to be significant. On the other hand, scores were higher in basketball when that skill was learned before the volleyball skill.

The track starting skill was found to be significantly faster when it was learned before the football starting skill. However, the learning of the track start first seemed to produce better times in football, although the differences were not found to be significant.

Interaction of method and order of teaching. When tennis was learned before badminton, the method of deliberate teaching for transfer of learning seemed to be effective, but when badminton preceded tennis, or when both badminton and tennis were learned alternately, this method was not effective.

The deliberate teaching of transfer of learning appeared to be less useful when the volleyball and basketball skills were learned separately and better when the skills were learned alternately. Differences were found to be significant.

The deliberate teaching of transfer of learning was more effective in the football skill when the paired skills were learned separately and less helpful when learning of the paired skills was alternated. Differences were significant at the 10 per cent level of confidence.

When the skills were the first of the pair learned, the deliberate teaching of transfer of learning was found to be the better method.

IMPROVEMENT (DIFFERENCE BETWEEN THE FIRST AND FINAL DAY SCORES)

Method of teaching. A variation in the amount of improvement was found when the method of teaching the skills was considered.

The only differences found to be significant in the method of teaching were in the track start. In this skill, more improvement was made when transfer of learning was not deliberately used. The football skill reversed this pattern but differences were found to be significant at only the 10 per cent level of confidence.

No significant difference was found in the method of teaching the badminton, tennis, volleyball and basketball skills.

Order of teaching. The data in table IV indicate the least improvement in all skills was found when the paired skills were learned alternately. This finding was consistent throughout the study, although in each skill it lacked statistical significance.

The performances of the volleyball, basketball, track and football skills were found to be most improved when these skills were the first of the pair learned. The badminton and tennis skills reversed this pattern; however, this is the type of condition to be expected, since the effects of positive transfer are to be found in subsequent learnings.

The learning of the basketball skill did not appear to have a favorable effect on improvement in learning the volleyball skill, although differences were not found to be significant.

TABLE IV
MEANS[1] FOR EACH OF THE SIX SKILLS IN THE ORDERS OF TEACHING

Order of Teaching	Means					
	1 Badminton	2 Tennis	3 Volleyball	4 Basketball	5 Track	6 Football
x 1 - 2	53.67	20.47	67.40	20.50	.146	.439
y 2 - 1	55.77	18.87	59.57	20.70	.139	.465
z 1 and 2	51.73	18.20	55.63	19.60	.120	.434

[1] Each mean score represents fifteen subjects.

[2] Numbers 1 - 2 represent skills 1 and 2, and also skills 3 and 4, and 5 and 6.

The badminton skill did not appear to aid the learning of the tennis skill; this was indicated in the analysis of both the tennis and badminton skills. Differences, however, were not found to be significant.

Interaction of method and order of teaching. The deliberate teaching for transfer of learning seemed to result in less improvement when the badminton and tennis skills were learned alternately and more improvement when the skills were learned separately. The track and football skills reversed this pattern. Differences were found to be significant in the badminton and tennis skills, but not in the track and football skills.

Conclusions

Many of the findings of this study are not in themselves statistically significant, nor do they agree in every respect with expectations of various writers. However, the following specific findings resulted: (1) The initial learning of the tennis skill seemed to have had some favorable effect on learning the badminton skill; (2) The deliberate teaching for transfer of learning seemed to result in less improvement when the badminton and tennis skills were learned alternately and more improvement when the skills were learned separately; (3) The initial learning of the basketball skill seemed to aid in the final learning of the volleyball skill; (4) The deliberate teaching for transfer of learning was the significantly poorer method in learning the track starting skill; (5) The initial learning of the track start seemed to have had a favorable effect on learning the football stance start.

Within the limitations and restrictions of the experiments which constituted this study, observations seem to warrant the following general conclusions: (1) Skills and activities which involve similar elements and patterns should not be learned at the same time; (2) The method of deliberate teaching for transfer of learning (at the beginning levels of learning) appears to be ineffective in the subsequent learning of skills with similar patterns and movements.

Implications for Teaching

Based on specificity of learning, method of teaching, and interaction of method and order of teaching, the following implications for teaching seem to be justified:

SPECIFICITY OF LEARNING

1. Skills and activities which involve some similar elements and patters should not be learned alternately if the maximum positive effect of transfer is to be realized.
2. Skills and activities which involve many different techniques should not be presented in a short period of time, nor should two skills involving many different techniques be learned at the same time.
3. The best order for presenting skills and activities which involve some similar elements and patterns is to learn first one skill and then the other.

METHOD OF TEACHING

The findings of this study (with regard to the best method of teaching for transfer) fail to agree with the expectations of certain writers; however, the results of this experiment are not in themselves statistically significant. For these reasons it is injudicious to draw implications regarding method of teaching. From the results of this study, it appears that it makes little difference whether or not the deliberate teaching for transfer of learning is an objective. Transfer effects may occur in the same amount, regardless of the method of teaching. Under conditions involving longer periods of time, it is entirely conceivable that the possibilities for transfer of learning should be noted and understood by the learner. At any rate, without undisputed evidence to the contrary, it is illogical to assume that anything is lost where there is deliberate teaching for transfer of learning. Certainly the possibilities for gains should not be ignored.

INTERACTION OF METHOD AND ORDER OF TEACHING

1. In the initial stages of separate learning of related skills it seems that the deliberate teaching for transfer of learning is not of great importance. Perhaps it is of more importance as learning progresses to higher levels.

2. The method of deliberate teaching for transfer of learning appears to be effective when used in teaching subsequent related skills.

THE VALUE OF HARD ENDURANCE EXERCISES AND TESTS TO PRODUCE CHANGES IN WEIGHT, FAT, METABOLISM AND CARDIOVASCULAR CONDITION

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Introduction to Problem of Fat and Cholesterol Reduction

Exercise must be long enough and hard enough to produce significant changes in weight, fat, metabolism and cardiovascular condition. It seems that several types of values attach themselves to persistently performed exercises done daily over 6 or more weeks, provided the exercises are sufficiently intensive and continuous. In very hard exercises there is not only modilization of fat in the blood from the reserve storage in the tissues but there is utilization, especially when the exercise goes beyond 13-15 minutes (the point of sweating when walking on the motor-driven treadmill at 3-1/2 miles per hour up an 8.6% grade).

Treadmill walking and jogging, done by four young men, done again and again, produced significant reduction of fat (1), whereas, the ordinary physical education classwork, three times per week, did not reduce the fat (2). A recent conclusion in the medical field is that people who have high cholesterol are people who fail to use fat (3). Another paper by the writer gives many examples of fat reduction by exercise and correlative improvement of cardiovascular fitness (4). Several top heart specialists flatly contend that much more exercise is needed to offset atherosclerosis (clogging up). (5), (6), (7), (8). Reduction of cholesterol has been clearly shown in exercised chickens (9).

The marked association of endurance exercise with fat and cholesterol reduction (10), (11), increase of basal metabolic rate (12), increase of the hemoglobin (13), Vitamin A increases in the blood (14), development of larger heart stroke volume, greater oxygen intake and reduction in peripheral resistance (15), and reduction in heart size (16); all along with marked improvements in endurance in motor tests exercises, has been clearly shown in several studies at the University of Illinois (17), (18), (19).

The "Training" Idea Is Important

A new look should be given to endurance, as the main approach to fitness, in physical education programs. It can only be obtained in day by day training. In the opinion of the writer, the best approach to fitness is in finding the ways to develop endurance. Factor analysis by Cureton (20) and by McCloy (21) have shown that there are several types of endurance, specific to feet and legs, lateral muscles, arm flexons, arm extensors and circulatory-respiratory (running) fitness.

Heat Developed by the Body is Important

We see the great value of endurance exercise for building organic reserves of the body, what is usually referred to as organic stamina. Certain kinds of endurance exercises of the rhythmical endurance type do develop circulatory-respiratory fitness, whereas, statical exercise, tensing and weight lifting generally do not (22). It appears that the key to the relative effectiveness of the exercises is development of internal body heat — FROM THE INSIDE OF THE BODY TO THE OUTSIDE. This effect is thought to be entirely different from the exposure of the body to a hot room. In the latter case the blood is pulled out of central circulation into the dilated blood bessels of the skin. But in exercise, the small vessels of the body (in the muscles, heart, lungs) are dilated in the main systemic circuit if the internal body heat is enough and if the exercise is long enough continued.

If too much blood congests in the skin the efficiency of the main systemic circuit may be markedly harmed. In hard exercise, continued to the point of raising the internal body heat, many small capillaries are opened which are, otherwise, not functional. The arterioles in the muscles, heart and lungs are also dilated so as to permit more passage of blood and they seemingly become more efficient in moving the blood.

People have been known to faint in hot rooms or in very hot tubs of water, due to pooling too much blood from the deeper tissues of the body into the skin. In general, exercise causes blood flow in the central systemic circuit to brain, heart and muscles, in proportion to the speed of the movements and the duration of the exercise. To get maximum circulation it is necessary to work hard and long enough to turn over the blood as fast as possible. The development of body heat to the point of perspiration and considerably beyond is considered a fundamental mechanism to achieve the maximum training effect. About 20 minutes of continuous exercise is needed for good ''warm-up''(23).

Circulatory Training is Needed

The principle of over-load states that a muscle is not developed to higher strength unless it is 2/3 rods or more over-loaded, or more, or worked hard and long. It must work to the point of real stress or fatigue. The same principle holds for the development of the circulation system. It must be worked hard and long to improve its functional efficiency. Every coach of swimming, of track and of cycling will tell you just that — that easy work never improved anyone.

Gradually we have come to see that nutrition is a matter of opening up as many capillaries as possible (24). When body heat is raised and circulation is at a maximum, the moment for much more complete nutrition has arrived. Certain nutrient elements, present in the blood, liver or stomach, will be carried more completely to tissues which are not otherwise fully supplied. Optimum nutrition is a condition in which the tissues use oxygen most fully, thereby combusting food elements by combining with oxygen. But such nutrition cannot occur if the capillaries are closed down and do not function to transport oxygen and nutrients to the tissues. This point is generally overlooked by nutritionists, who calculate an adequate diet in terms of calories, fats, carbohydrates, vitamins and minerals. Food is probably used in proportion to the rate of body metabolism and in proportion to the completeness of the blood circulation. Hard exercise is, therefore, more important than easy exercise.

Dr. August Krogh has shown that if the estimated volume of the capillary beds is 1, then by deep massage the proportionate volume may be as much as 9 - 12, but after moderate continuous endurance work it may become 18 - 20, and in exercise which induces maximum circulation it may become 40 to 50 times as great (25). The increased capillarization found by Petren came as the result of running dogs long and hard on a treadmill (26). The development of collateral circulation as reported by Eckstein (27) came by running dogs hard.

A body with sluggish circulation will appear to have sluggish metabolism and use relatively little oxygen. Why does not the body use oxygen better? If any of the circulatory passages are clogged up it will certainly not be able to get blood to the tissues being fed by those capillaries, hence, will use less oxygen than if the passages were all open. In older people certain cells may get weak and even die because of the lack of adequate blood supply through enough open capillaries. They would appear, from all that we know, to need regular progressive exercise up to hard exercise.

Dr. Hardin Jones, of the University of California, (29) by making tests with a new geiger counter technique, has shown that health and youth are directly related to the amount of blood flowing through the tissues. Using more than 500 industrial workers the average 18 year old had 25 c.c. of blood passing through one liter of muscle per minute. At 25 years the average had dropped sharply to 15. c.c. per minute. This is a drop of 40%. Some 50 year old people had blood flow as good as 20 year old subjects. Physical fitness and body type are factors which partly explain this. Looking young is not a reliable criterion as some young-looking men drop dead from atherosclerosis. Maintaining circulatory fitness by hard exercise is "preventive," i.e., anti-clogging in its persistant effect. Apparently there is also the reason why former champions still in training in middle age were shown to have better fitness than those who went sedentary (28).

Hard Exercise Worth 17 Pounds in a Year

To stay normal in weight most sedentary people need to exercise long and hard to burn up the food they eat, otherwise, there will be a steady accumulation. Recent figures from the Harvard School of Public Health (30) (Dr. Frederick J. Stare and Dr. Jean Mayer) indicate that over a period of a year the difference between eating moderately and exercising, compared to not eating moderately and not exercising may be estimated as much as 17 pounds per year. From the same department has come the evidence of Dr. George V. Mann (10) showing the value of exercise to hold cholesterol levels low and weight normal even though the caloric level was raised to a high calorie diet.

All society has been drifting away from hard work of the type done by our pioneer forefathers and foremothers. Mechanical machines of all types and descriptions have reduced the physical labor. Yet, several studies, (31) by Dr. J. B. Morris and his colleagues have shown that workers in sedentary occupations have more coronary thrombosis than those in active occupations.

Endurance Exercise is the Key

It is now believed by us that endurance exercise done again and again, even in an artificial manner, will have some real protective value against the accumulation of fat on the body, in the blood vessels, within the tissues of the heart and around the lungs. Beyond a doubt this accumulation of fat hurts the circulation and associated nutrition. ''Fatty infiltration of the heart'' has been pointed to as a dangerous forerunner of heart disorder. It is probable that fatty condition of the blood vessels is even more serious because it is usually one or more blood vessels which deteriorate, ulcerate or come to pieces, leading to a blood clot which may later lodge in the coronary vessels of the heart.

It is only endurance exercise which has given us good improvements of the Brachial pulse wave in the heartometer test, larger electrocardiographic deflections of the R and T waves in the precordial leads, lower peripheral resistance to the blood flow and relatively higher oxygen intake values during work tests. All of these tests indicate better capacity to circulate the blood. In mild programs of exercise of the casual recreational type, we have not obtained significant gains in cardiovascular condition as judged by those tests. Nor have significant gains come from weight training, or tensing exercises, which have as their main objective making the muscles bigger, harder, and stronger. The weight training program is very effective to do these very things, but it is extremely disappointing not to find significant cardiovascular gains accompanying the gains in strength and in muscular size.

The Best Exercise

The best gains in cardiovascular condition have come from activities like swimming, walking uphill on a treadmill, walking and jogging alternately for 30 minutes or more, rowing for endurance, relatively hard rhythmic calisthenic training exercises; in general exercises lasting 30 minutes or more, cross-country skiing, long distance cycling and swimming. We have not been able to get comparable gains out of volleyball, golf, bowling, social dancing or light calisthenics. Because we value the gains in cardiovascular condition so very much, associated as they are with practical levels of endurance exercises, it is clear that more of the endurance component is needed in programs purporting to develop circulatory-respiratory fitness.

The significance of exercise long enough continued should be especially noted. Karpovich estimated that 8 minutes were required to affect the sugar reserves in the blood and liver (32). Several studies in our laboratory have shown that a few minutes of warm-up is not enough to affect the oxygen intake capacity or performance but Ganslen (33) and Christensen (23) demonstrated that hard endurance exercise for 20 minutes did affect bot significantly. In a 30-minute up-hill walk on the treadmill we can get a good warm-up effect. Walking and jogging on the treadmill, 8.6% grade, has resulted in marked reduction of fat in an experiment carried out on four fat boys. This was shown in terms of pinched up adipose (fat) measurements. It is true that exercise is effective for reducing fat if it lasts long enough and is of the up-hill climbing or endurance running type. By doubling the time of the physical fitness classes during the war we obtained marked reduction of fat in various subjects, whereas, such reductions were not possible in previous classes of the "recreational" type where concentration was mainly upon learning skills.

Application to Middle Age

The common impression is that middle aged men or women should not take endurance exercise of the "all-out" type. In this our experience over the past 15 years of continuously running classes which stress endurance training is possibly contrary to most public opinion. It is important that all candidates for these classes be medically screened, as we do have them. Men who have been rather recently under medical care should be excluded by advice of the physician. But our experience has shown that middle aged people can gradually build up the dosage that they take with great profit to their improved physical fitness and endurance. Such normal people, after 2-3 months of preliminary walking-testing-exercising, can take the so-called "all-out" endurance test exercises without harm. The temporary discomfort and follow-up soreness is not considered harmful because it passes away soon enough without any known organic damage. With the practice of such exercises, which do represent organic over-load, there is steady improvement of the cardiovascular functions provided an initial period of two or three months is given to make a gradual adjustment. This is our regular practice and has been over the past 15 years at the University of Illinois and in over 100 YMCA's which have followed our lead in this work.

Little Danger in So-Called "All-Out" Exercises

There are possibly several reasons why we have not run into unusual trouble in contradicting the usual "take it easy in middle age" philosophy. In the past 15 years we have never hospitalized a middle aged man in connection with the Urbana work, nor in more than 200 physical fitness clinics run in various Y.M.C.A.'s, army and naval bases over the country since 1941. The reasons are possibly as follows:

1. Men do not really go "all-out." We ask them to do what they can without running until they drop. The untrained man feels a bit tired after running to what he thinks is his limit, so he stops. Actually, this is not his true physiological

limit nor his survival limit. It is called the psychological limit and it is far from either of the others in the ultimate sense. We think that we have proved this. Even the expert, though he may come closer to his physiological limit usually does not go into a cramp, deplete his venous blood pH under 7.0, nor exhaust his blood sugar. These are physiological limits. Even when men do reach these limits, as apparently Jim Peters did in his Helsinki and Vancouver marathon races, they are far from the survival limit. The next day or two they are running the same as usual. John Marshall reduced his venous blood pH to 6.82 and Gilbert Dodds to 6.9 in all-out tests in our laboratory.

2. As men get along with their training they become more confident, feel better, and hence, will try harder on a test. Some of their improvement is due to this psychological factor. But physiological tests show that their physiological tests are better too, meaning, greater tolerance for exertion in terms of ability to tolerate relatively higher levels of blood lactate (relatively lower pH) and carbon dioxide. They develop better "wind," or more scientifically stated, they feel less distress due to relatively lower oxygen debt in the same type of effort and they develop relatively greater capacity to take in and use oxygen during work; also, they develop greater ability to adjust to hard exercise by better breathing, learning to relax while exercising, and have lower diastolic blood pressure and pulse rate after a standard 5-minute step test or after an "all-out" run.

3. We never give a man an all-out test until we have completed quiet and moderate exertion tests upon him. It is easy to spot men with high blood pressures or to see if they develop severe signs of breathlessness. If a man has a very poor Brachial pulse after running in place for 1 minute at 180 steps per minute, then he should be given several weeks to build up his fitness before being run "all-out."

It is very clear to us that "soft-pedalling" hard endurance exercises and tests is important at first, at least for a month or two, until men have made reasonable adjustment to exercise. Throughout this preliminary period we should note by quick checks upon Brachial pulse waves (sitting, standing and after a 1 minute run in place), pulse rates and blood pressures after standard exertion tests, whether a man is making the adjustment or is continuously more fatigued than before starting the physical training. Some men do show poorer tests for a few days or weeks, but after a month or two of "informal" exercising practically every man will show better ability, less soreness, will be sleeping better, and will be enjoying his exercise. One should be wise enough to understand this period of adjustment and bear with it. We have clearly seen that we cannot improve men in their muscular and cardiovascular fitnesses without interposing hard exercise fairly regularly and tests of the endurance type from time to time. We have used this system for 15 years, sometimes with "arm-chair" objections. In leading this system, we have done everything we have ever asked any man to do, and will support the method as the best known one to date to physically improve the cardiovascular system of men. But we also understand the fears of those who have never tried it.

One final point is that experienced coaches and physical educators, who have customarily led men and women in physical exercises, develop a practical "feel" of what their pupils can and cannot do. We would match this practical insight with that possessed by any medical doctor, psychiatrist, dentist, or health worker of any type. Still, we do not ignore any medical opinion in the way of a specific objection or prescription. We follow that to the letter. We do not think that we ask men to do foolish things. We never force a man to do anything. When a man feels that he should not work at so fast a pace or that he should not attempt an exercise, we never force him. We simply say, "There will come a day. Just keep at your training."

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MECHANICS OF HUMAN MOVEMENT — THROWING

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Film: 16 mm sound, includes high speed and x-ray photography.

The production of the film was made possible by a research grant given jointly to the cinema, anatomy and physical education departments, at their request, by the College of L. A. & S. at the University of Southern California. Originally it was planned to make a film to study the mechanics of throwing. Twelve subjects were selected, ten of whom were members of the varsity baseball squad. High speed motion pictures photographed at 5000 frames per second and x-ray pictures photographed at 60 frames per second were taken of the twelve subjects' foot, knee, arm and hand while doing a pitching motion.

Two additional subjects, the top pitchers on the varsity squad, were photographed in action on a baseball diamond with the high speed camera. The best pictures from all the subjects were used in the final film.

The high speed shots of the twelve subjects mentioned earlier were taken from a distance of twelve feet. One part of the body was photographed at a time. A two inch grid screen was used as a background. The subjects were dressed in gymnasium shorts, shirts and basketball shoes. They stood on a platform two feet high and threw the baseball as hard as possible against a mat twenty feet away.

Ten of the subjects with two additional subjects performed the pitching action when the x-ray photography was filmed at 60 frames per second. The subjects worked in very close quarters, and the speed of action was reduced in order that the camera could pick up the motion.

Pitching was selected because it is one of the highest levels of the skill of throwing. The object in pitching involves attempting to throw the ball as fast as possible. Many of the principles utilized in all types of throws are often employed in pitching.

The equipment used was a special Wallensak Fastax Camera capable of recording motion up to 12,000 frames per second and cinemaradiography equipment developed at the University of Southern California and operated by a member of the medical school of this same university.

After viewing the pictures photographed with the above equipment, the cinema department suggested that the final film be organized into two parts.

I. Lecture Phase
II. Film Phase

The lecture phase involves an instructor introducing the ideas and by means of diagrams, drawings and demonstrations, illustrating and explaining certain principles that are used by a pitcher in performing the throwing skill (pitching).

The four principles or ideas selected for use in the film are as follows:

1. Range of Motion.
2. Summation of Forces.
3. Conservation of Angular Motion.
4. Balance in Motion.

The film phase shows a high speed motion picture of a top college pitcher pitching a baseball. Interwoven are x-ray and close up high speed shots. Narration accompanies the film explaining the action.

HIGHLIGHTS OF EXPERIMENTAL OR PIONEER PROGRAMS OF HEALTH EDUCATION

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American Medical Association

Reports concerned with research, demonstration, or pioneer programs in health education need not be long, drab recitals of boring details. Rather, they can be concise accounts of promising practices as demonstrated in both experimental and on-going programs. With this in mind, a variety of brief newsy sketches from the rapidly developing field of health education will be presented here. It is hoped that these will be sufficiently illuminating to encourage some listeners to review certain of the original references.

''Electronic Education''[1]

Lately we have been reading about the ''invisible commercial'' in which a message is intermittently flashed on a T.V. or movie screen for a fraction of a second. The period of exposure is so brief that the viewer is not consciously aware of the process but a substantial impression is allegedly made upon the subconscious mind. In tests, when brief messages like ''Try our delicious popcorn'' were used, popcorn sales went up 50%. Perhaps the bigger sales are due to coincidence or otherwise can be explained away. Nevertheless, the so-called invisible commercial is an interesting idea.

Even if the process works, it could never be an acceptable method for school and college health education. The goal of school health education is to teach students to act intelligently about health and not merely to react like robots to the appeal of mass media. School health education emphasizes basic principles which have application to new developments in the rapidly changing health scene. It utilizes procedures which give opportunity for creative activity. Finally, school health education stresses methods which will interest youth, with the right capacities, in health-science careers. No electronic device can serve these purposes. Only an understanding teacher blessed especially with the attributes of empathy in addition to his teaching skills can help the student toward such goals.

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[1] Woltus, Larry, ''Psychologist Creates New Ad Technique,'' reported in the Chicago Daily Tribune for Sunday, September 22, 1957.

Los Angeles Evaluation[2]

Are such broad goals being served in today's school health education? Certain schools and colleges in the Los Angeles area with the help of Prof. Ned Johns of U.C.L.A. decided to find out. The big appraisal grew out of one person's interest in checking the effectiveness of health teaching in his own school. Soon interest spread not only to other schools and colleges but also to local health agencies. That this interest was real is attested by $26,000 in financing which the Los Angeles Tuberculosis and Health Association has to date granted to the project.

The Los Angeles appraisers are comparing what is actually going on in their schools with recommended practices in health education. They are also using a variety of methods to check changes in the health knowledge, attitudes, and behavior of pupils. Through this double-barreled approach they hope to arrive at a good estimate of their success in achieving objectives. And who are these appraisers? By and large, they are the teachers and administrators in the schools concerned.

Self-appraisal has been found helpful in upgrading programs and Los Angeles has been no exception. Increased interest has been shown by school board members and administrators, as well as teachers. At the last reporting, no results in terms of pupil progress were given, but it would be safe to suggest that the greatest values of the projects have already been realized in the evaluation process.

Teachers Vs. Pupils[3]

An old teaching maxim stated that a person should know twice as much about his subject as he would ever be called upon to teach. This would imply, also, that he should know twice as much as his students. Not so, however, in health education according to a recent study made in one of our southern states by W. A. Mason.

Teachers ranked ninth grade level, high school seniors, seventh grade level, respectively. One study proves little but work related to health misconceptions by Blanchert, Hinrichs, and Dzenowagis and his associates all lead to similar conclusions. The old maxim may be faulty but there is little doubt but that many teachers of health would profit from more thorough and extensive preparation.

In justice to the teachers it should be said, however, that many are "impressed" into health instruction against their own better judgment. This, plus the fact that more than 65% of physical educators have health teaching responsibilities, strongly supports the recommendation of the

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[2] Johns, Edward B., "An Evaluation Project: Health Education Project Sketches," Journal of Health, Physical Education and Recreation. 28;4: 27-28 (April) 1957.

[3] Mason, W. A., "Teacher Needs In Health Education," Research Quarterly 25, 1:58-64 (March) 1954.

AAHPER National Conference on Health Education that: All physical education majors should have a minor or its equivalent in health education.

Field Experiences in Florida[4]

In Florida personnel from the State Department of Education and the State Department of Health are trying to do something practical about the in-service education for teachers. Summer field work in local health departments carries university credit and offers a variety of health education experiences.

Under careful supervision the teachers observe and, when appropriate, participate in health department activities. These may include health education, communicable disease control, environmental sanitation, laboratory services, vital statistics, and child and maternal welfare.

Theory behind the project is that the teacher is already possessed of the necessary technics and methods for health teaching. The field experiences provide new secutiry stemming from a broader background and better understanding of health and its application in the community.

Connecticut Advisory Council[5]

Representatives of the State Medical and Dental Association and of the State Departments of Education and Health, combine to form the "Connecticut Advisory School Health Council." One of the functions of the Council is to try to help its teachers keep abreast of health developments.

Most recent contribution of the Council in this direction is the production of "The Suggested Teacher Reference Guide on Fluoridation of Public Water Supplies." The "Guide" provides objective, scientific information about the problem, tailored for teaching purposes.

Health teachers everywhere would welcome similar capsule-type statements covering other developments in health, particularly when these are controversial. In many places, fascinating current problems are left out of health education either because too little information is available on the subject, or because so much material is available that it is difficult to synthesize, or because the teacher lacks guidance in how to deal with controversial issues.

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[4] An article covering the Florida Field Experience program has been submitted to the Journal of Health, Physical Education and Recreation and is expected to be published during 1958. Information available from Z. Maynard, State Department of Education, Tallahassee, Florida.

[5] Connecticut Advisory School Health Council, "Suggested Teacher Reference Guide on Fluoridation of Public Water Supplies" Connecticut State Department of Education and State Department of Health, 1957, Hartford, 12 pp. (mimeographed).

"Health Education and Smoking"[6]

Along similar lines Thompson and Flynn have pointed out that the health educator, particularly at the college level, has an obligation to bring the story of new health advances to his students. They use the current controversy about the possible relationship of smoking to lung cancer and to heart disease as an illustration of the students' need for authentic information on such problems.

Thompson and Flynn then proceed to show how the conscientious health educator can do this through a careful survey of related literature. Biggest problem is reducing conclusions to a series of succinct statements which will be both interesting and informative for the student.

Such surveys in connection with other health problems could have great value for health education. They provide understandable starting point for class discussion and further exploration and activity by the students themselves.

Athletics and Health[7]

The Monthly Bulletin of the National Federation of State High School Athletic Associations goes to forty-seven states; Texas, it is reported, is not a member. Beginning with the opening of school this fall, the National Federation in cooperation with the American Medical Association's new Committee on Injuries in Athletics, has been carrying on a health education project.

Each month pertinent comments on the health aspects of athletics is presented in the Bulletin. To date, topics have included "Asian Influenza and Athletics," "Moving An Injured Player," "Vitamins, Oxygen, and Drugs," and "The All-American Diet."

Many of the State Associations are reproducing the one page "health messages" each month in their own Bulletins, some in a special form for use on school bulletin boards. In this way the "health messages" reach a great majority of the high schools in the United States and in turn, thousands of young people.

"What Teachers Think"[8]

Contrary to some ideas, teachers are concerned about the health of their children. An extensive survey conducted by the Cooperative Committee on School Health Education shows that teachers are conscious of the health problems of their children and that they relate these appropriately to pupil progress and academic achievement.

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[6] Thompson, Clem W. and Flynn, William, "New Health Education Implications in the Association of Smoking, Lung Cancer, and Heart Disease," Research Quarterly, 27, 4:431-446 (December) 1956.

[7] National Federation of State High School Athletic Associations, 7 South Dearborn, Chicago 3, Illinois, H. V. Porter, Secretary; C. B. Fagan, Associate.

[8] Cooperative Committee on School Health Education, "Health Needs of School Children — A Report of Problems As Seen By Teachers," American Association of Colleges for Teacher Education and others. The Association, Oneonto, New York, 1954.

The Cooperative Committee had the feeling that part of our problem in generating a "health consciousness" in teachers resulted from the inability of so-called health experts to sense the deep-down health problems in the classroom. So the Committee set out to obtain the uninhibited reactions of teachers in terms of the health problems of their children. Perusal of the report of the survey indicates that they succeeded.

Careful study of individual comments and their frequency suggests that teachers still hold many health misconceptions. It also indicates some misunderstanding of cause and effect relationships in health. But it is most revealing in that it demonstrates that teachers are concerned about the health of their children and that with good guidance they could do much to help improve the health and fitness of children.

Cooperative Curricular Development[9]

More than most other areas of educational concern, health education extends outside the doors of the school. Parents, private practitioners of medicine and dentistry, the public health department and numerous voluntary health agencies, as well as the school, share responsibility for child health. And unless the efforts of all of these individuals and agencies can be harmonized, the child will lose in the process.

The Chicago Public Schools recognized this in the development of their new curricular guide for health education in the secondary schools. In addition to teachers and school administrators, representatives of the parents, professional, public and voluntary health agencies cooperated in curriculum construction. When the guide was ready for printing, it received the endorsement of all of these groups as well as the Superintendent of Schools office.

The results are intangible but eminently worthwhile. All of the key persons involved have a feeling of belonging concerning the curriculum. Many important community agencies are better informed about school health education. Most important, there is a feeling of security relating to health teaching that could have been gained in no other way.

"Physicians and Schools"[10]

In recent years, national, state and local conferences on physicians and schools have helped to clarify the viewpoints and to consolidate the the thinking of education and medicine on school health education. Now medical schools are taking the initiative in early orientation of prospective physicians about school health programs.

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[9] Chicago Public High Schools, Living With Yourself and Others: A teachers Guide to Health Education, Board of Education, Chicago, 1955.

[10] For information, address Robert W. Deisher, M.D., Assoc. Prof. of Pediatrics, Univ. of Washington Medical School, Seattle, Washington.

The pattern varies but generally such orientation is part of the course in preventive medicine. The future doctor spends a certain amount of the time in the schools observing the health activities, conferring with school personnel and studying children. In some instances, he participates appropriately in certain activities.

As in other phases of education, the crowded medical curriculum makes it difficult to implement such patterns universally. But experience has demonstrated that such programs are contagious and already some evidences of this have shown themselves.

Exercise and Weight[11]

Jean Mayer, Ph.D. is a nutrition researcher at the Harvard School of Public Health and not a physical educator. But his statements about the place of exercise and physical activity in modern living should certainly endear him to the profession.

Recently Dr. Mayer and associates in a carefully controlled study of the eating and exercise habits of children found: that overweight youngsters had significantly less activity than did their leaner classmates. One of the most interesting observations of the study was the fact that the heavier, less active youngsters ate less than the thinner ones. Inactivity in the study appeared to be of greater importance than over-eating in the development of obesity.

As a result of this and other studies of human nutrition, as well as earlier animal investigations, Dr. Mayer concludes: ''Inactivity is the most important factor explaining the frequency of 'creeping' overweight in modern Western society.'' That this recognition by Dr. Mayer and others has tremendous implications for health education as well as physical education is obvious.

Healthful School Living[12]

For the first time there is now available a book covering the mental-emotional as well as physical aspects of a healthful environment for education. This pioneering volume entitled Healthful School Living, which for the first time synthesizes available information on the subject, has been prepared by the Joint Committee on Health Problems in Education of the National Education Association and American Medical Association.

Like its predecessors Health Education, 1924, 1930, 1941, 1948, and School Health Services, 1953, Healthful School Living provides a combined education-medical judgment on problems related to one of the three recognized parts of the school health program. Thus, along with the two earlier books, the Joint Committee now offers students in the field, authoritative information on all aspects of school health. Most of the material has equal application at the college level.

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[11] Mayer, Jean, The Role of Exercise and Activity in Weight Control, Weight Control, Report of the Weight Control Colloquium, Iowa State College Press, 1955, pp. 199-207.

[12] Joint Committee on Health Problems in Education of the National Education Association and American Medical Association, Healthful School Living, The Association, 1957, Washington, D.C. and Chicago.

In Healthful School Living you can find out, for example, the safe temperature limits for hot water in showers, the latest recommendations on the prevention of so-called athletes foot, or the best method of bettering acoustics in the gymnasium. Equally interesting information is provided, of course, about other phases of the school program. Engineers, architects, and school building specialists, as well as health authorities, served as contributors and consultants for the new volume.

Time has permitted discussion of only a few of the many examples of experimental and pioneer programs in health education that might have been reported. Those selected were chosen not because they were more unique or of greater merit than others, but rather because they illustrate important efforts to implement phases of health that are of special concern to education. Also, they provide broad geographical coverage and are illustrative of health education efforts of professional and public health agencies as well as schools and colleges.

It is hoped that this review will stimulate others to initiate and carry through additional experimental and pioneering programs in health education. The contribution of the examples cited and the many others that could have been mentioned to the advancement of health education cannot be overestimated.

HIGHLIGHTS OF ELEMENTARY SCHOOL PHYSICAL EDUCATION PROGRAMS IN THE UNITED STATES

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The recent impact of Sputniks has rocked and torn the ''grassroots'' of our elementary and secondary educational systems. In many ways, we have been quite content with our modern educational plan and now look at us. Some educators are anxiously considering immediate ''next steps'' and are scurrying around ''taking stock,'' making excuses and advocating curricular changes. Many school authorities are planning to move arithmetic and science into the first and second grades as an immediate step. Another group, however, wishes to give more careful consideration to the situation and to make a deliberate attack through a more careful and thorough study.

A few years ago, Dr. Rudolf Flesch's book, WHY JOHNNY CAN'T READ AND WHAT YOU CAN DO ABOUT IT, caused much consternation in our elementary schools. Parents, teachers and administrators were alarmed and alerted about the correct method of teaching reading. Many school people made drastic changes in their reading programs and catered to the public demands, while others tried to prove that Doctor Flesch was deliberately attempting to mislead and deceive the American people.

Even in our profession we have faced a much similar situation in the ''blatant'' announcement that ''the American children are not as physically fit as the European children.'' We were informed that 56% of the 4,264 American children failed in one or more of the Kraus-Weber tests, and when a like sampling of Italian and Austrian children were given the same tests, only 8% failed. As a result of these comparative scores, the President of the United States called a conference of well-known individuals to study the problem and make recommendations. Many physical educators rallied to defend our profession and refuted the accuracy with which the total physical fitness of a child or group of children can be measured by the six tests. They asked for an identification and clarification of such terms as fitness, physical fitness, social fitness, mental fitness and total fitness. Other individuals in our profession were challenged by the situation and immediately took steps to promote the ''fitness program'' in both elementary and secondary schools. They reacted by staging national, state and even local conferences in fitness. Through these conferences, information was afforded local communities which made them wonder what could be done in our physical education programs to improve the fitness of our children.

Predicated upon the aforementioned circumstances, a nationwide investigation was made to determine the extent of experimentation and pioneering done by the public schools and teacher education institutions to improve elementary school physical education. Approximately 650 letters were sent to State Departments of Education, Teacher Education Institutions, and Public School Systems throughout the United States. The highlights of the returns are arranged on a state-wide basis for public schools and by individual teacher education institutions.

ALABAMA. Fourteen one-day-schools-of-instruction in physical education for grades 1-12 were conducted throughout the state designed to provide better instruction for all boys and girls. In the Bessemer Public Schools, most teachers have administered the Kraus-Weber Physical Fitness test to their class. After the first testing, children became concerned with their inability to perform and began to do exercises at home. Parents were happy to see physical fitness activities emphasized. At the West Elementary School in Cullman, the boys and girls are asked to evaluate the year's work. The teachers then follow-up with their evaluation and a new guide is revised for the next year.

ARIZONA. The first state guide in the area of physical education for grades 1-12 is being developed through workshops at Arizona State College, Tempe. Physical education in the Phoenix Public Schools is taught by specialists in grades 4-8, and they are innovating combining boys and girls in intramural activities by altering rules of the games. In the Tucson Public Schools, emphasis is placed on self-testing activities and by rotating the trampoline, a set of parallel bars and mats. All school children can participate in this equipment. During orientation week, the music supervisor and physical education supervisor work together to combine music, rhythms and physical activities.

CALIFORNIA. The California School Physical Education Supervisors are completing a book entitled, DESIRABLE COMPETITIVE PHYSICAL ACTIVITIES FOR CHILDREN IN GRADE FOUR THROUGH EIGHT. A large number of school districts are doing self-studies and developing courses of study which include units of instruction and progression of skills from kindergarten through eighth grade. Many elemlntary school districts have participated in the preliminary fitness testing program. Some programs are district-wide and some county-wide. Special teachers in physical education are now added in the seventh- and eighth-grade elementary schools to a large extent. Various counties have sponsored physical education committees or councils. These councils have been responsible for planning in-service programs and for giving leadership to intramural and extramural programs. The Los Angeles City Schools are planning on producing a film depicting "the value of physical education activities as related to life situations." Several television programs have been offered the public sponsored by the California Association for Health, Physical Education and Recreation.

CONNECTICUT. A practical brochure on "The Physical Education Teacher In The Elementary School K-6" was issued by CAHPER relating statement of beliefs concerning purpose, program and personnel. In the Mansfield Public School in Storrs, the classroom teachers have given the Kraus-Weber tests for minimum physical fitness. The State Division of Health, Physical and Driver Education does not sanction interschool sports in the elementary schools. In most schools in the state, the physical education program consists of 15 minutes of instruction in the morning for all classes and 15 minutes of supervised play in the afternoon.

FLORIDA. The trend in this state seems to be toward more effective use of itinerary teachers and special teachers for physical education. All teachers are employed on a 10-month basis. The tenth month allows two weeks pre-school and two weeks post-school in-service education. At state level workshops, they have a large three-day workshop which overlaps with a three-week workshop. The three-week workshop participants are responsible for recording and further refining the ideas and suggestions growing out of the three-day workshop. A state Elementary Council has a committee studying the services needed for art, music and physical education.

INDIANA. A special project is underway in this state to develop a survey form and score card to evaluate the physical education programs. Another project of some note includes a special service of the State Division to arrange dinner mettings in counties for school administrators, physical education teachers and coaches. In Bloomington Metropolitan Schools, traveling teachers visit each elementary school two or three times each week. They present a definite program of selected activities in grades 1-6. Regular ballroom dancing is taught in grades 4, 5, and 6.

KANSAS. Wichita Public Schools are experimenting in educational television conducted in cooperation with the Fund for Advancement of Education.

KENTUCKY. A very helpful bulletin was published by the Department of Education entitled, "Planning and Developing the Elementary Physical Education Program." This bulletin is not a course of study but a guide for improving physical education programs in the elementary schools.

LOUISIANA. Many schools are hiring physical education majors to act as resource people for the primary and elementary teachers in addition to other teaching responsibilities in grades 4-8. The trend in this state is to hire physical education teachers and assign them one-half day to their minor areas and one-half day to instruction in physical education in grades 4-6. A new guide has been published for physical education in primary schools at a primary education workshop held at Louisiana State University and sponsored by the state department.

MAINE. A new development of Woods Safety Program is handled by the physical education specialist or classroom teacher and involves map and compass reading, woods survival and firearms safety.

MARYLAND. For the past two years the Division of Health and Physical Education in the Baltimore Public Schools has sponsored television programs. The first theme was "Fitness for Fun," which offered twelve successive programs of 15 minutes each. The second theme was "Fitness Figures," which ran for 10 successive weeks. The Division owns two 16 mm motion picture cameras, and they photograph various activities to use in workshops and to meet individual school situations. An experimental program which provides paid "Lunch Aids," who are assigned to conduct and supervise various noon hour activities, has been tried. The "Aids" are female parents and interested citizens in the community.

NORTH DAKOTA. A special bulletin has been published and distributed to all elementary classroom teachers. This bulletin gives specific directions for each grade-room teacher who is allocated 25 minutes each day for physical education.

NEW MEXICO. There has been definite progress in physical education in the elementary schools in this state as a result of the emphasis on youth fitness. Many schools are adopting an in-service program for all teachers. Colleges and Universities are adding courses in teacher preparation. Steps are taken to eliminate all forms of undesirable competition for elementary school children.

NEW YORK. According to the recent State Annual Report, the primary children receive about two periods a week of physical education taught by the physical education specialists, and in intermediate grades, about 2 1/2 periods a week by the specialists. The remainder of the time, physical education is taught by the classroom teacher. There is a state committee studying the problem of pre-service education for the classroom teacher. In the Buffalo Public Schools, a tentative curriculum guide was developed with the cooperation of about 150 classroom teachers, physical education specialists and administrators. In Roslyn Public Schools, the specialists are experimenting and doing an excellent job in the area of creativity. In Schenectady Public Schools, integrating physical education with the rest of the school program is the main emphasis.

NORTH CAROLINA. The State Department of Public Instruction periodically publishes a bulletin entitled, "Timely Tips," for all elementary schools. These bulletins encourage better health and physical education programs throughout the state. The latest one was on "Evaluation and Planning the Physical Education Program."

OHIO. The trend in the larger cities is toward a special teacher for the physical education program. The Cincinnati Public Schools have printed a Public School Athletic Handbook which describes the athletic program for intermediate grade boys and girls. Tournaments in volleyball and basketball, stunt meets and track meets are conducted under the Athletic League. Physical Achievement Testing cards are used in the regular instructional program and award certificates are presented to pupils receiving 70 or more points.

OREGON. A committee is working on an Oregon Fitness Test Battery which includes test items for children. A recent publication, ''Principles and Policies for Elementary School Athletics in Oregon,'' offers minimum essentials for the organization and administration of interschool athletics in the elementary schools as administered by the State Department of Education upon approval by the State Board of Education.

TENNESSEE. A series of state-wide conferences was conducted last year to help the classroom teacher learn about the Kraus-Weber Test and how to improve the physical education program. The emphasis of these conferences was to pinpoint one of the objectives of physical education-physical fitness. A brochure on ''Physical Fitness For Our Tennessee Children'' was published by the University of Tennessee Extension Division.

VIRGINIA. The state Department of Education published a teacher's guide entitled ''Physical Education Grades 1-7,'' which is used extensively by the teachers. The State Department has conducted conferences for physical education personnel in the colleges in this state. These conferences have helped bring about an improvement in the preparation of the elementary school teachers.

WASHINGTON. A State Physical Education Curriculum is in the process of developing a course of study for the elementary program. An unfortunate trend in this state has been the self-contained classroom development without improvement in physical education training of the elementary teachers. The new curriculum guide will be of great assistance.

WISCONSIN. Definite recommendations have been made to the Wisconsin Commission on Teacher Education and Professional Standards by the WAHPER. These recommendations are: since the classroom teacher teaches physical education in this state, she should have comprehensive work as an undergraduate; she should continue to improve in service through good supervision, through additional formal education and by self-direction. Within the past years the Department has conducted over 55 clinics for elementary school teachers which include demonstration teaching, motion pictures, discussion and actual teacher participation.

UNITED STATES. The U. S. Department of Health, Education and Welfare, Office of Education, has just published a nation-wide survey entitled, ''Ten Questions on Physical Education in Elementary Schools.'' Over 520 systems in cities with a population of 10,000 and over reported the following highlights: (1) 85% employed special teachers or consultants; (2) Of the 5,225 specialists employed, 57% were men and 45% were women; (3) 72% of the men and women were assigned to day-by-day teaching; (4) 62% of the systems provided in-service education for classroom teachers; and (5) 72% of the men and 69% of the women were physical education majors.

RECENT HIGHLIGHTS OF ELEMENTARY SCHOOL PHYSICAL EDUCATION CURRICULUM IN SELECTED TEACHER EDUCATION INSTITUTIONS

ARIZONA STATE COLLEGE, TEMPE. A structured workshop to lay the ground work for a state guide in physical education for grades 1-12 was conducted during the summer session by the Department of Health, Physical Education and Recreation.

UNIVERSITY OF ARKANSAS. Selected physical education leaders from the colleges and public schools are developing a state guide in physical education for elementary schools. Twelve elementary schools will be used as pilot schools.

UNIVERSITY OF CALIFORNIA, LOS ANGELES. Along with the six units of physical education required of all undergraduate elementary school majors, the Department of Physical Education has recently added a graduate course in Elementary School Physical Education for classroom teachers, specialists, and supervisors. Plans are underway to develop a Master's Degree program for supervisors, consultants, specialists and coordinators in elementary school physical education.

UNIVERSITY OF IOWA. The Women's Division of the Department of Physical Education has produced a film for the use of elementary school teachers illustrating methods, materials and forms of physical education which yield a high amount of purposeful activity on the part of the children.

COLLEGES IN LOUISIANA. Several state colleges require every physical education major to spend at least nine weeks of student teaching at the elementary level. In one state college, the major is required to do student teaching at the elementary level as a separate requirement.

UNIVERSITY OF MARYLAND. The Department of Physical Education offers an "area of specialization" in elementary school physical education for men and women majors. In addition to five required courses, four weeks of student teaching is required at the elementary level. The Department offers special programs for students who wish to pursue graduate work and advanced degrees with specialization in elementary school physical education. Many research studies on elementary physical education are under way.

UNIVERSITY OF MINNESOTA. A recent innovation for physical education majors, in addition to student teaching in the elementary schools, is scheduled, daily observation and work in the classroom. The elementary school major 8-quarter credit requirement has recently changed from 3 to 5 credits for professional preparation courses and from 5 to 3 credits for non-professional courses in physical education. The basic reason for this change was that the key person for teaching physical education to children is still the elementary school classroom teacher.

THE OHIO STATE UNIVERSITY. The Department of Physical Education added a course at the graduate level for preparing physical education specialists. They are planning major curriculum revisions with the focus on the elementary school child rather than on teaching activities or skills. A child psychologist cooperates with the physical education instructors in planning and guiding the learning experiences for the students.

UNIVERSITY OF OREGON. Research is underway in cooperation with Medford Public Schools, Southern Oregon College and the Athletic Institute in "Physical and Motor Growth Patterns of Boys as Related to Athletic Participation."

UNIVERSITY OF NORTH DAKOTA. Special emphasis is placed on the correlation of art, music, games, drama, crafts and rhythms in the physical education methods courses for the physical education majors.

THE PENNSYLVANIA STATE UNIVERSITY. The physical education major students receive a very comprehensive course in Elementary School Physical Education.

UNIVERSITY OF SOUTHERN CALIFORNIA. An extensive doctoral investigation has just been completed entitled, "Recommendations for the Improvement of the Physical Education Program in the Elementary School." Approximately 11,000 contributions were secured from 310 educators.

UNIVERSITY OF TEXAS. This is the only University in the country that requires all candidates for any kind of a doctors degree in any phase of education to be examined in the fields of health and physical education. Both master and doctoral candidates usually take a special course called "Education and Physical Welfare," which touches strongly on the elementary school physical education.

UNIVERSITY OF UTAH. All elementary school majors are required to observe, participate and teach at the Stewart Laboratory School. Each student has many opportunities to teach the laboratory children, approximately one-half hour each time. Following each class the laboratory children and college students evaluate the teacher.

WAYNE STATE UNIVERSITY. A film sponsored by Wayne State University's Audio-Visual Department and AAHPER entitled, ''A Design for Physical Education,'' is available. This film is in color and depicts children with emotional problems helped through a good physical education program.

A national picture of the extent of current thinking, experimenting and practices can be deduced from the many highlights in selected public schools and teacher education institutions. There is no doubt that many schools have forward-looking programs and outstanding practices which should give others some ideas of improving physical education in the elementary schools.

TRENDS AND OUTSTANDING PRACTICES
IN
BOYS' PHYSICAL EDUCATION ON THE SECONDAY LEVEL

W. K. Ruff
Stanford University

Sources of Information

In order to assemble the information presented in this report, a letter was sent to all state presidents of Health, Physical Education and Recreation asking them to submit information on programs within their state that they though represented outstanding practices or procedures in physical education, or to refer the writer to people within their state who might provide such information. A few of the State Directors of Physical Education were asked to name specific high schools to which one might write in an attempt to gather information about outstanding practices. Each of the high schools recommended were then asked three questions:

1. What is the most outstanding feature of your Physical Education program, including athletics?

2. What one change or addition would improve your program most?

3. What prevents the above desired improvements from being realized?

The response to all questionnaires was quite gratifying.

Summary of Findings

Trends: Several state presidents mentioned the practice of Municipal Recreation Department coordinating their activities with secondary schools and the growing practice of using the secondary school physical education facilities for the purpose of recreation during the summer months. Coupled with this practice was the use of physical education personnel for the supervision of recreation.

2. The placement of physical education majors in their minor academic field and assigning them to coaching duties after school, usually for extra remuneration.

3. A rapid expansion of participation in wrestling and flickerball were mentioned in several responses.

4. A recent extension of activities intended to increase physical fitness was mentioned but most of those who mentioned it seemed to feel that this was a temporary or spasmodic effort and that it would not endure very long.

5. The over-all survey seemed to indicate a considerable increase in the availability of swimming facilities for secondary schools and thus an extension of swimming as an activity on this level.

6. Several of those responding indicated an increase in coeducational physical education and one school district indicated that their aim was to have all physical education activities offered on a coeducational basis and separate boys and girls for competition for intramural and interscholastic competition.

7. There seems to be a definite trend toward offering elective opportunities in boys physical education with various types of systems being utilized for boys and girls to qualify for the elective opportunity.

8. Weight training seems to be advancing somewhat in terms of popularity, however, it seems most often to be a supplementary training activity and no cases of weight lifting as competitive activity were mentioned.

9. Many methods of classifying boys for physical education activities were mentioned and there seems to be a definite trend developing to indicate classifications by the color of uniform worn by the student.

10. In California, there seems to be a definite trend toward marking in physical education on a merit and demerit basis--merits being earned for evidence in skill, leadership, etc.--merits being lost for misbehavior or violation of rules, etc.

New Activities:

1. An experiment in the weigh-in practices utilized in wrestling is being conducted on a state-wide basis in Nebraska. Boys are weighed-in at the outset of the wrestling season and classified at that time. Whatever weight classification they qualify for at the time of this weigh-in, places them in that weight category for the entire season and they may not participate in a lower classification during the season. This experiment is an attempt to circumvent the criticism often directed at wrestling on the high school level, namely that of restricting diets of high school boys.

2. The practice of utilizing different colored shorts in physical education activities as a means of recognizing outstanding achievement. This form of award, though not actually new, seems to be unusual enough to warrant mentioning here.

3. The use of student-faculty committee to assist the Physical Education Department Chairman and his staff in the evaluation and guidance of the Physical Education Program, though not a new idea, seems to be quite unique in actual practice.

Conclusions

This study has resulted in a degree of disappointment. At the outset it was hoped that a considerable number of new activities would be discovered. However, as noted above, there are actually very few really new activities being attempted. There seems to be a growing tendency on the part of many secondary schools to extend the range of activities offered to students and, from the general tenor of the survey, it would appear that our professional people are becoming more and more concerned about offering secondary school youth a broader and far more interesting program than their predecessors have ever before enjoyed. With this broadening of the scope of the program, many personnel problems have materialized which, in turn, have meant an extension of activities in skills taught by the colleges that are preparing Physical Education majors. Likewise, in some cases it has required the utilization of resource personnel within the community who have special skills to contribute. Generally speaking, it seems fair to say that more and more secondary schools are becoming concerned about the quality of the physical education programs being offered.

PHYSICAL EDUCATION IN JUNIOR COLLEGES

L. E. Means
California State Department of Education

Much could be written about the nature and extent of physical education programs in the junior colleges of the nation. To identify segments of existing programs which could really be termed experimental or pilot in nature is a much more complicated procedure. Such identification cannot be determined by the usual criteria which might be used in evaluating programs of physical education in the elementary and secondary schools. Youthfulness and immaturity are still characteristics of junior college program development which have at best had a life span of not more than 50 years - and really in an active way not more than 15 years. When one compares the progress that has or should have been made in clear-cut definition of positive practices at the lower two levels of education, it then becomes clear that some of the practices and directions of junior college physical education which might appear commonplace to the casual observer are really beacon lights of experimental progress in the present decade.

Perhaps some word about the background and growth patterns of junior college education is necessary if one is to understand physical education at that level. Space here permits only passing reference to some of the conditioning factors. Even though the first American junior college had its origin in 1896 in Illinois, it was not until the 1920's that real growth was noticeable. Consistently, year after year, new junior colleges have come into existence until now there are almost 650 such institutions. One should not be misled by statistics when talking about growth of America's community colleges. The junior college in one state is an entirely different institution than that found in others. There is little, if any, likeness between these colleges in Wisconsin, Inidana, New Mexico, Ohio. Oregon, Pennsylvania, Virginia, West Virginia, and those in California, Texas, Colorado, Florida, Illinois, Iowa, Michigan, Minnesota, Mississippi and Washington. Some states have all or most of their junior colleges operated by the county or state; others are almost entirely denominational; large numbers are privately operated. The New England states are devoid of public junior colleges with the exception of Massachusetts. Some states have all or most of their two-year colleges only as extension centers of a college or university, such as Ohio, Pennsylvania, Virginia, West Virginia, Nevada, Louisiana, Indiana, and Tennessee. The table in the Appendix gives a status report of Junior colleges in the nation as to number, size, type, and other data. California, Texas, Iowa, Illinois, Mississippi, New York, Michigan, and Oklahoma lead the nation in numbers of public junior colleges. None are found in Hawaii, Puerto Rico, or the Phillippines.

The movement has found unusual expression in California. Depending upon what basis is used for computation, recent data discloses that almost 75% of all freshmen and sophomores in California attend public junior colleges. Thus we should expect that California should be making rapid strides in the quality of physical education programs offered - as indeed is the case. Reports from several sources in Texas (second ranking state in numbers of colleges) indicate that much needs to be done at present and in the future to develop adequate well-rounded programs to balance the heavy emphasis on intercollegiate athletics which now predominates the program in that state. Some of the reasons advanced by one authority for the phenomenal growth of junior colleges in California are presented in the Appendix.

Significant in California, when evaluating physical education, is the tremendous capital outlay of funds for indoor and outdoor physical education facilities. The State Department of Education sets as a minimum standard for new colleges, at least 100 acres of usable land. Los Angeles Pierce and Mount San Antonio each have 450 acres. Hartnell has 340 acres; Orange Coast has 254; and 15 others all have sizeable acreage, with generous allocations for physical education and athletics. California now has 62 public and five private junior colleges, with ten more predicted within five years.

REASONS FOR DELAY IN EXPERIMENTAL CURRICULUM DIRECTIONS

Junior colleges in many places have too often been a mere extension of the local high school until recently. Often, in early years, the physical education staff of the high school provided college leadership. Too often, perhaps, the curriculum reflected little or no change from traditional ''blocks'' of team activities. This condition still prevails in some colleges unfortunately. The lack of adequate and different type facilities also retarded new curriculum design.

LEGAL REQUIREMENTS FOR PHYSICAL EDUCATION

Some colleges in some states offer physical education on an elective basis only. Most states require a minimum of two hours per week for all or most students. California requires a minimum of 120 minutes per week for all students, and if facilities permit - one hour per day is recommended. Excuses can be granted in case of medical disability or after age 25. Exemptions for returning veterans have been eliminated.

Most California junior colleges require registration in courses running two hours per week. A few require four hours; two colleges have five; and several require three hours.

OBSERVABLE TRENDS

Many junior college leaders are aware that fitness is difficult to maintain with only two periods per week. One attempt has been made to correct this weakness by requiring students to elect two courses of two hours each per week under a system of multiple enrollments. One course may be elected in any coeducational or leisure-related course such as archery, bowling, horseback riding, dance, social recreation, and the like. The other course must be from a group of very active electives such as weight training, gymnastics and trampoline, combatives, body mechanics or "charm," or strenuous varsity sports. Long Beach and Santa Monica City Colleges in California operate under this policy. The latter includes much testing and physical conditioning.

Another group of colleges have attempted to achieve some balance between coeducational trends and fitness emphasis by requiring multiple enrollments in two courses each semester; one two-hour course of any type, and one additional hour of more vigorous activity. The one-hour group includes all team sports and some individualized fitness activities. Naturally, it is necessary to work out rather definite and objective techniques of measurement and grading with two courses involved. The 2 and 1 plan provides a better way to schedule classes around a five-day week. San Bernardino Valley College, Riverside College, and Chaffey College (all of California) are staunch advocates of this plan.

Many other colleges require election of one two-hour course, plus permissive right to elect another two-hour course of different nature. Some give credit for a third hour earned through intramural participation.

Another type of program is emerging, best characterized by College of the Sequoias (California). This plan is predicated on the following:

1. Almost all courses are taught by one instructor on a coeducational basis.

2. No team sports are included in any course pattern. It is felt that a good program of intramural, extramural and intercollegiate sports will meet all needs in this area. It is assumed that men and women have all needed background in team sports before college entrance.

3. Adult leisure-related course areas are emphasized.

4. Facilities are designed to permit the above. No batteries of outdoor basketball and volleyball courts are built, as an example.

Another decided instructional activity trend is toward greater emphasis on leisure-related outdoor activities. The whole nation has suddenly awakened to the opportunities that await them in the natural setting.

Millions of people and dollars are becoming involved. It is refreshing to see the emphasis at Olympic College, Washington, where almost all courses are coeducational. Areas emphasized are family camping, trail rescue and survival, mountaineering, camp workshops, hiking, with combinations of photography, angling, and painting. Oakland Junior College and Orange Coast College in California offer courses in sailing, canoeing, boat handling, and boat safety. Santa Monica City College has roving archery in the mountains.

Another decided trend is the development of courses off-campus on facilities not commonly found there. This includes bowling, golf, ice and roller skating, horseback riding and skiing.

Another interesting trend is the development of either official or improvised golf greens and tees on the periphery of campus turf areas for instruction and recreation. Several California colleges have very adequate courses of from four to nine holes, such as College of Sequoias, Santa Rosa, Stockton, Yuba, Palo Verde, and Porterville. The project will soon be completed at Sacramento Junior College, Mount San Antonio College, and Orange Coast, all in California, and at Centenary Junior College in New Jersey. Complete nine-hole golf courses can be found at St. Bernard Junior College in Alabama; Nichols Junior College, Massachusetts; and American River Junior College, California.

Several junior colleges now have - or are planning - very complete aquatics centers, usually multiple pool types. It would be difficult for most four-year colleges to match the fine indoor facilities for aquatics at El Camino College and Sacramento Junior College (California), or the fine outdoor plants at: (All California)

Bakersfield College
Mount San Antonio College
Fullerton Junior College
Taft College
Pasadena City College
Vallejo College
Orange Coast College
Chaffey College
Long Beach City College
Napa College
Santa Monica City College

Quite a number of colleges require proficiency in swimming as a prerequisite to graduation.

Glendale College offers courses in Cowboy Dancing; Hartnell College includes equitation. Coeducational tumbling and gymnastics is on the increase. Courses in riflery and bait and fly casting and fly handicraft are increasing. Combatives for men are quite common. Some offer courses in fencing, wrestling, judo and boxing. Montgomery Junior College in Maryland has given unusual emphasis to boxing. Only one California junior college has permitted boxing to proceed farther than through class instruction (Shasta College).

Real progress in developing classes and trained instructors in physical education for the handicapped has been slow. Adapted activities classes, with low student-teacher ratio, are found in a few colleges. Weight training and individualized corrective and remedial work is receiving much recent attention. Women's courses in conditioning, body mechanics and posture are reported to be unpopular in many colleges - but a change in course title (with similar content) to modeling, charm, et cetera, have boomed enrollments everywhere.

In California, and other areas where sizeable enrollments are found in junior colleges, there is a positive recognition of the role of the two-year college in lower division major preparation. Agreements are being reached on professional courses that should be taught by competent instructors at some junior colleges. Adequate recruitment of needed personnel in health, recreation, and physical education must take place during the first two years. The trend is for the better junior colleges to offer courses in Camp Leadership, Social Recreation, Basic Health Education, Introduction to Physical Education, Introduction to Community Recreation, and Elementary School Rhythms and Games. It is apparent that junior colleges must provide some recreation leaders equipped for immediate placement in specialized activity areas in California. The function of the two-year college in offering coaching and methods courses is doubtful and almost obsolete.

The expanding role of the community college in providing recreation and leisure services to all ages is rapidly increasing. It is exemplified perhaps best by the Mott Foundation program at Flint (Michigan), Junior College. This trend must naturally be closely coupled with instructional opportunities for youth and adults in physial education, creative and applied arts, dramatics and music. Scores of courses are now being offered to meet these needs - College of Marin (California) being a good example.

Intramural sports at the junior college level has left much to be desired. There are several reasons for this. Recently, at least eight California colleges have appointed intramural directors with full responsibility. Immediate and positive results have been noted. Junior Colleges over the nation are showing signs of accepting their responsibility for the physical recreation needs of students and faculty. It is hoped that the trend toward better balanced sports-for-all programs will continue to expand.

Coeducational extramurals are rather frequent in California junior colleges. Some of these experiences are shared with students of four-year colleges.

The over-expansion of intercollegiate athletics in junior colleges appears to be levelling off in desirable directions. Texas and California colleges have often erred in placing most of their emphasis in this area. Some athletic policies in junior colleges, when compared to accepted practice in most four-year colleges, have been open to much question. Schedules in football of 10-12 games, 30 to 50 basketball games, and upwards of 50 baseball games for some junior colleges with heavy freshman personnel offer a vivid contrast to restricted freshman schedules in vogue in most intercollegiate athletic conferences over the nation. Recent desirable limits have been placed on California college schedules.

A concomitant outcome of this emphasis has been a tendency to hire all or most of the male staff members for coaching responsibilities. New emphases in California are providing staffs with better trained personnel equipped to assume their diversified duties as physical education instructors. Almost all of these men have master's degrees, and many have much training beyond that level. The quality of instruction in this state is improving rapidly.

One of the factors has been the rapid mixing of the sexes in courses, and renewed interest by students in new elective areas.

Junior colleges are beginning to develop better techniques for screening and testing students in competency areas. This is important as they assume an increased transfer function, especially for major students. Recent projects here are developing a cumulative transfer form for physical education competencies to be used for major students. These forms will follow the student to the four-year college and be used to eliminate overlapping and duplication, and to insure broader competencies for future teachers.

We believe it is safe to assume that junior colleges are looking toward a great future. Their role is unmistakable in decades ahead. They stand as the last outpost between formal education and active citizenship for a bulk of our population. This fact provides challenges and opportunities which are dynamic. They are the heart of the modern education-centered community. They must assume the tremendous burden of enrollments for higher education not possible elsewhere. They are largely financed by local citizenry and belong to the people. They can be responsive to the needs of the area without all of the restrictions and barricades which sometimes condition the effectiveness of some four-year institutions. The post-war school population ''bulge,'' which has challenged the best efforts of elementary and secondary school officials, has not yet, but will soon, hit the higher education levels.

One desirable trend, already much in evidence on the West Coast, will necessitate close co-operation and teamwork between leaders of the two and four-year colleges as current and future problems are faced.

This reporter has tremendous faith in the ability of the junior college to meet these challenges and responsibilities.

PHYSICAL EDUCATION AND ATHLETICS IN MEXICO

David C. Furman
University of Puerto Rico

There is a great deal of interest in athletics in Mexico and the interest has its roots in ancient origins. Cortez and his men found the Aztecs playing a game with a rubber ball when they arrived in the early sixteenth century and several of the Spaniards wrote descriptions of the game without recording the playing rules. It was generally supposed that the Aztecs had originated "tlachtli," as they called it, but there is abundant evidence today that they had copied it from other Indians, and that its history goes back many centuries. There is a "ball court" in evidence in the ruins at Monte Alban, and these ruins are some of the most ancient found in Mexico. Archaeologists date the ruins from before the time of Christ and there is some evidence that they may go back as far as 1500 B.C., with the Zapotecs being given the greatest credit for their construction. This is a view of the most spectacular part of the ruins showing the location of the "ball court." According to the archaeologists the ball was of rubber, somewhat smaller than a volley ball and played with the hips and knees. Two teams played, with each team attempting to propel the ball into a dead corner where it could not be played by their opponents. The captain of the losing team was sacrificed to the Gods. It is anyones guess what happened to the losing coach.

Several "ball courts" have been found in the Mayan ruins on the Yucatan peninsula. These ruins are of later construction than those at Monte Alban and vertical stone hoops were added to the walls of the court. The object of the game was to get the ball through the opponents hoop, again using only the knees and hips. The vertical hoops were also found in the courts used by the Aztecs.

It is interesting to note that a ball game was played by the Indians in Puerto Rico when the Spaniards first arrived. The ruins of several courts have been found and archaeologists believe that the game originated in Mexico and reached Puerto Rico by way of Central America, South America and the Lesser Antilles.

Gambling was associated with all of these games and the stakes were frequently extremely high with the loser sometimes giving up all of his worldly possessions.

In all locations the ball games were associated with religion. The Spaniards tried to stamp out the religions of the Indians and it is probably for this reason that the games died out.

Physical Education in the schools follows a rather scattered pattern, as one might expect when considering the general development of the country. The majority of schools are in rural areas and the facilities for Physical Education are either very limited or non-existent. The Mexicans, like the people in many other underdeveloped countries, have great faith in the power of education. For this reason they make a real effort to have good school facilities. These include basketball court, volleyball court, baseball field and soccer field wherever possible. In the most primitive towns the church, the school and the ''social security'' building are the most imposing edifices.

The school buildings range from a one room in the rural areas to some very respectable ones in the larger cities. This is the school yard of a typical, medium sized school with the children playing before the beginning of classes in the morning. A study of the activities going on will give a key to the kinds of activities found in the Physical Education programs. The activities found here are similar to those found in similar schools in the United States and this is the general pattern for Physical Education. In this particular school yard, volleyball, rope skipping, tag, relays, and general play were in evidence, without any organization from teachers.

This is a high school in a medium sized community which is fortunate enough to have public play facilities adjoining which are quite good and as can be seen are modern. It should be noted that the schools that have Physical Education programs use facilities wherever they can be found in the community, and in a really large community, such as Mexico City, the students may travel ten miles to reach their Physical Education classes.

As might be expected, the best programs are probably to be found in Mexico City. The teachers are well trained, in schools that seemed to me to be comparable to State teacher training institutions in the United States. I could not find evidence of graduate training in Physical Education, although the National University was talking about instituting such instruction. I did meet two men in Physical Education with their doctorates but both were in dentistry.

The best Physical Education programs that I found were in the Preparatory Schools of the National University, which operates five such schools in Mexico City. These schools are given numbers and #1 is the oldest and most famous in the nation. It is located in the heart of the city, without any external grounds but with three large patios which are used for Physical Education. There are approximately 4,000 students, mostly boys, in this school and there are fifteen teachers of Physical Education. Two hours of Physical Education per week are required of all students and most of them have to travel great distances for these classes. Many of them going as far as the University which is at least ten miles away.

This is not as bad as it sounds because transportation is good and cheap, and the students have the entire afternoon free from their other classes. There is also an advantage in having access to some really excellent facilities.

The students were given some choice of activities and at the time I was there classes were offered in the following activities: track and field, apparatus, refreeing, boxing, basketball, baseball, badminton, regional dancing, classical dancing, cycling, fencing, soccer, tumbling, wrestling, swimming, volleyball, and softball.

These are some views of the three patios in the #1 Preparatory School which, incidently, is more than 300 years old. The first patio is used for badminton. The second patio is used for basketball and volleyball and has a fountain at one end, which probably helps to keep the balls clean. The third patio, which is by far the largest, is used for a number of activities. The basketball competition in the first Central American Games was held here in 1926, and I am told that as many as 10,000 spectators were able to see the games at one time. The murals that can be noticed under the arches are some of the most famous in Mexico. The building is full of true fresco murals done by the most famous artists of Mexico, such as, Rivera, Siqueiros, and Orozco. There are also some famous oil paintings that combine to make this building a "must" for anyone interested in art.

Preparatory School #3 is smaller and not so famous. It has only one patio as shown here. The Physical Education program is similar but not as extensive.

It is in the National University that the finest facilities are found. This University has the most magnificent physical plant that I have ever seen and possibly the finest in the world. Mexico put its best architects, engineers, and artists to work on this project less than ten years ago. By the expenditure of millions of dollars an unsightly lava bed was transformed into a stupendous campus. These are some views of the athletic facilities which are open to the preparatory school students as well as to those in the University. The enrollment is about 40,000 but most of the students are on a part-time basis.

This is a view of a scenic walk that begins at the Physical Education office building and runs to the exhibition fronton. Athletic fields and facilities are in the entire area to the right of the walk and it took me nearly 15 minutes to walk the entire distance. This is a view of the exhibition fronton which has a cafeteria on the outside. There are tables and benches for the cafeteria with the practice running track beyond. This is one of the football fields. Adjoining are other fields for football, soccer, softball and baseball. This is the exhibition baseball field with frontons and basketball courts in the background. There are twelve outdoor basketball courts such as these. The frontons are very large and are used for frontenis which is a combination of tennis, handball and squash. The court is 100 feet long and the three walls are 25 or 30 feet high. The courts have no right, side wall. A standard tennis racket strung with gut to 45 lbs. tension is used. The ball is rubber and about the size of a tennis ball without the felt cover.

The stadium has a Diego Rivera mural and a capacity for more than 100,000 people. The swimming pool is the most impressive I have ever seen and has a seating capacity of 10,000 or more. Actually it is four separate pools that are connected. The largest pool is fifty meters long and has eight wide lanes.

There are a number of private athletic clubs in Mexico City and these are some views of the largest and most impressive one. The facilities include restaurant, bar, soda fountain, table tennis, apparatus, weight lifting, bowling, three gymnasiums, and dressing facilities all indoors. Outdoors there are seven frontons, six tennis courts, three swimming pools, a roller skating rink, and a playground for children.

Sport facilities are found in some unusual places. We visited the Sunday market in Tlacolula, which is more than 350 miles south of Mexico City. After taking this picture of the open market, I discovered that I was standing under a basketball goal.

There is every indication that Physical Education will show a tremendous development in the years to come.

PHYSICAL EDUCATION AND SPORTS IN BURMA

Ralph A. Piper
University of Minnesota

Burma is an independent Southeast Asian country bordered by India, East Pakistan, Tibet, China, Laos, Thailand, and the Bay of Bengal. It is a little larger than Texas and ranges in altitude from sea level to 10,000 foot mountains. There are three seasons--warm and rainy, cool and dry, hot and dry. Its population is about 20 million, consisting of many Chinese and Indian residents in addition to the Burmese. The average height of the Burmese is about five feet two inches. The form of government is socialist with a President, Premier, and a two-house Parliament elected by 12 Districts in the 5 States. The party in power at present is the Anti-Fascist People's Freedom League. The main opposition is from the Communist party.

Education in Burma

Education is a function of the national government rather than of the state governments. It is administered by the Ministry of Education and is free at all levels from elementary schools through the University. Burma is proud of its literacy rate which is higher than any other Eastern country except Japan. Burmese is the first language, but English is taught starting in the fifth standard (grade). In addition to the public schools there are many private and missionary schools which have higher standards of instruction. Teaching is a respected profession which appeals to many because salaries are paid for 12 months and teachers receive social security benefits. Beginning teachers in State schools receive about $25.00 to $30.00 a month plus a $20.00 cost-of-living allowance which is quite adequate for living.

Physical Education in the Schools

Physical Education, or Physical Training as it is usually called in Burma, is supervised by two Assistant Inspectors of Schools under the Director of Education. One of these is U Ba Than, an elderly man and the other is U Than Win, who returned to Burma in 1956 after earning his B.S. and M.A. degrees in Physical Education at U.C.L.A. In the Districts, there are 7 Deputy Inspectors for boys and 7 Deputy Inspectors for girls. Under these inspectors there are 424 men and 193 women P.T. teachers in 454 Middle Schools (grades1-7) and 232 High Schools.

Teachers are poorly qualified, due to the low standards for certification which permit teaching in the Middle schools after passing the 7th grade and in secondary schools upon passing the 9th grade (followed by one year of teacher training).

Facilities are limited because of the lack of funds provided by the government but most schools do have outdoor play areas.

Because of overcrowding, many schools operate on a split shift--7:30 to 11:30 a.m. and 12:30 to 4:30 p.m. The time allotment for physical education is from 30 to 45 minutes per day and teachers handle classes in both the morning and afternoon sessions with a weekly load of 25 classes per week. In some schools, however, the P.T. classes are held as early as 5:30 or 6:00 a.m. for all students with the normal class time devoted entirely to academic subjects.

The courses of study in Physical Training outline a varied program similar to the typical school and Y.M.C.A. programs in the U.S. 30 to 40 years ago. The typical class period in actual practice, however, consists of mass calisthenics plus a game or relay during the early months of the school year. During the later months it is common to devote all of the class time to practice by selected students on the mass drills set up by the Deputy Inspectors in each District. These drills are presented and judged in all-District competition on Education Day, February 10th. Evaluation of the physical education program tends to be based on the performance of these drill teams rather than on the contribution of Physical Education to the development of all students in a school. A new syllabus is being developed, however, and with the guidance of U Than Win a program may evolve which will be based on sound educational principles. The implementation of such a program will be largely dependent on the in-service training of teachers in the field.

Teacher Training

A six-week summer course has been set up in Rangoon for the purpose of in-service training. Teachers in the schools receive travel allowances and daily allowances in addition to their regular pay. They pay ninety kyats (about $20.00) for the entire expenses of the course, including board and room. This program should result in rapid improvements in the schools from which these teachers come.

The State Training Colleges for Teachers in Rangoon and Mandalay offer specialized curricula in Physical Education. Students are selected for these one-year training courses by the Community Boards of the Districts in which they live and they are obliged to return there to teach, although not necessarily in Physical Education. Tuition is free and students receive a stipend of 60 kyats (about $15.00) a month for maintenance, although they only pay about one half of that for board and room.

Staffs are relatively small and lacking in professional preparation. The College in Mandalay does attempt to train its students in all of the activities outlined in the syllabi for primary, middle and secondary schools. The College in Rangoon places much emphasis on classical dance and on preparing for and presenting a grand demonstration on Education Day.

Physical Education in the University of Rangoon

The University of Rangoon is the only university in Burma. It has an enrollment of approximately 9,000 students on the main campus in Rangoon and branches in Mandalay, Choukpyu, Magwe, and Moulmein. Physical Education classes are offered in only one college, The Faculty of Education in Rangoon, with approximately 150 men and women students enrolled in one-year or two-year curricula. Activity classes meet for one 45 minute period 4 days a week between 6:30 and 8:00 a.m. plus a lecture on a fifth day. Attendance during 1956-57 was very unpredictable and there were seldom over 10 to 20 percent of the men students participating. Activities and the conduct of classes reflected the objectives based on a philosophy that the main purposes of Physical Education are to instill discipline, to train in response to command, and to present an annual demonstration on Education Day. Men's and women's programs included mass calisthenics with jerky, full-contraction free exercises, drills with wands and Indian clubs, and deep-breathing exercises. Graduates of this college go into the schools as teachers of academic subjects but they may also teach Physical Education.

Recreational and Competitive Sports

The Burmese love to play and to compete in sports just for the fun of it rather than for the glory of winning.

Just as in all other lands, young children play various forms of hop scotch, jump-rope, marbles, and other low organized games during their free play time. Adults as well as children enjoy an indigenous game called Chinlon. It is played in a circle by 5 to 7 people who kick a cane ball 6 inches in diameter, passing it from one player to another without allowing the ball to touch the ground. Another indigenous sport is the rowing races on Inle Lake in which as many as 50 to 60 men stand on one foot on the gunwales of long canoes and paddle with the free foot and one hand.

In schools the sports programs are extra curricular and come in the after school hours. Because of the lack of indoor facilities the common and almost single sport played during the monsoons (June to October) is Football (Soccer). It is played as an intramural activity by boys and there is interscholastic competition on a small scale. Inter-District and Inter-Division championships are held.

During the cool-dry season, (November to March) boys and girls participate in Volleyball, Basketball, Badminton, and Track and Field. The school sports season ends with interschool competition for each District on Independence Day, January 4th.

At the University of Rangoon, sports are financed and controlled by a Sports Council, composed entirely of faculty members. The program is actually supervised by a full-time Sports Officer. Facilities include over 20 tennis courts; a 50 x 100 foot outdoor swimming pool; one small gymnasium at the Faculty of Education and another on the main campus (this one is used exclusively for gymnastics and weight lifting); a small gym in one of the women's dormitories; several play fields; a 440 yard running track; outdoor volleyball, basketball, and badminton courts located so as to serve each of the men's and women's dormitories; a boat club on Inya Lake; and one indoor badminton court. Each of the dormitories is allotted a sum of approximately $30.00 by the Sports Council for its yearly sports program. This money is used by the Sports Committee of each hall in any way it sees fit. There are 15 students' sports clubs, each of which organizes its own particular sport with financial support from the Sports Council ranging from 500 kyats to 3000 kyats ($100.00 to $600.00). Each club has a student president, secretary and treasurer, and a faculty adviser. Sports include Badminton, Table Tennis, Chinlon, Football (Soccer), Track and Field, Swimming, Weight Lifting, Volleyball, Basketball, Boat Racing, Gymnastics, Tennis, and Boxing. Intramural competition is organized in all sports, mostly on an inter-dormitory basis. In Football (Soccer) the University enters teams in the A and B divisions of the National Fitness Council league which plays games practically every day in the Aung San Stadium before large paid-admission crowds. Players in the Badminton club compete with other clubs and enter the national championship tournament. All-University meets are held in Swimming, Track and Field, and other sports, following which the best men and women enter the Union of Burma championships. Occasional intercollegiate competition is held in Badminton, Tennis, and Crew Racing with colleges and universities in Thailand and India but there is no regularly organized intercollegiate athletic program.

The National Fitness Council is the main agency for the promotion and organization of sports in Burma. It was formed in 1950 under the Ministry of Health as a coordinating body to work with governmental and voluntary sports bodies. Its 16 members are all prominent sports figures in Burma and its Chairman is the Minister of Health. The main sports stadium and headquarters are located in Rangoon but it conducts a broad program all over the country and has contributed about $4,000.00 to each District and $400.00 to each Township for the construction of sports facilities. Local Sports Councils are organized in 40 of the Districts with the Deputy Commissioner as Chairman in each case. In each District the National Fitness Council has 2 men and 1 woman organizer who organize sports competition for all age groups. In addition to these 130 organizers, the N.F.C. has a staff of general and chief organizers at headquarters who give training couses to organizer candidates and who travel around the country supervising their work in the field. With limited facilities and equipment these leaders do a fine job of stimulating and organizing competition throughout the country. A height-weight-age classification is used in an attempt to equalize competition. Classes are, midget, Jr.-Jr., Jr., and Sr. As many as 3,000 to 5,000 men, women and children compete in track and field at the various District Sports Meets. The N.F.C. has been instrumental in bringing about the abolition of the admissions tax on sports and the sales tax on sports goods, as well as a reduction in customs duty on sports equipment that is imported. The Council aided the University of Rangoon in rebuilding its boat racing program by contributing 47,000 kyats ($9,000.00) to the boat club.

The N.F.C. works very closely with the National Sports Federations in such sports as Soccer, Boxing, Tennis, Badminton, Gymnastics, Swimming, Weight-Lifting, Track and Field, Chinlon, Boat Racing, Volleyball, Basketball, Sailing, Cricket, Field Hockey, and Softball (added in 1957). These federations control the sports within the country, establish rules, train and certify officials, and conduct competition to select the national champions.

These sports federations also select athletes in their sports for entrance in the Olympic Games and the Asian Games, although it is the responsibility of the Burma Olympic Association to decide on what sports will be represented and by how many athletes. Limitations are due to the low quality of performance in most sports and to the lack of funds. (Olympic teams are sent at government expense in Burma, not by voluntary contributions as in the U.S.).

Plans have been drawn up for the construction of a Recreation Gymnasium at the University to be financed by the Asia Foundation which has its headquarters in San Francisco. The Russian government plans to build a large sports area in Rangoon (in exchange for rice) which will include a stadium, tennis courts, a cycling velodrome, a swimming pool, and a boat club.

Golf has not been mentioned before, but there are two private golf clubs in Rangoon and a few others in the country. Membership is small and is limited to the higher economic class because of the expense involved. Women do the caddying.

Professional Sports

The only extensive professional sport is horse-racing and it is quite popular. Horses are small (limited to 14 hands high) but bets are unlimited and pari-mutuel windows do a rushing business. There is some professional boxing and boat-racing.

Raising Standards

Efforts have been made to improve the performance of Burmese athletes in sports by bringing in expert performers or coaches from other countries. In some cases this has been effective, but too often the work of these "experts" has been limited to the relatively few top athletes. Even the best athletes in Burma have not had good basic training in fundamentals which would permit them to benefit from high level coaching. Burma can develop some outstanding athletes, especially in sports that have weight classifications, but it will not materialize until there is a sound base established through strong Physical Education programs in its schools or the training of its boys and girls by highly qualified professional people outside of schools starting in early childhood.

Efforts in another direction have involved the sending of Burmese men and women to other countries for education and training. Often-times, however, a B.S. degree is required before an application will be accepted by the Burmese agency involved. The people selected may have a degree but they do not have a sound undergraduate education in Physical Education. Hence, they go abroad where they are accepted as graduate students on the basis of their B.S. in Burma. Because of their lacking undergraduate training, they cannot understand or benefit from the graduate work. Neither do they get the basic skills, philosophy, methods, and other knowledge that they so badly need and which is taught on the undergraduate level. Selections are often made on the basis of factors other than the best qualifications(politics, relatives, etc.). In the long run, the improvement of Physical Education and Sports in Burma as well as other Eastern Countries would be best implemented by selecting many interested boy and girl high school graduates with high scholarship and to send them to get a good 4-year college or university major undergraduate preparation in Physical Education. If they come to the U.S., it should definitely be to a college or university in the North, because of difficulties they encounter in the South as a result of their dark color.

Summary

The Physical Education program in Burma in weak by United States standards, but constructive changes are under way which should result in steady improvements. The sports program has developed on a broad scale since Burma gained it independence in 1948. The National Fitness Council and the National Sports Federations are doing an effective promotional and organizational job. A great need is in the area of improved teacher training, including the preparation of coaches.

THE PLACE AND VALUE OF ADAPTED PHYSICAL EDUCATION IN OUR COLLEGES AND UNIVERSITIES

Cecil W. Morgan
Springfield College

Adapted Physical Education has been defined as a "diversified program of developmental activities, games, sports, and rhythms suited to the interests, needs and capacities of students with disabilities or limitations who may not safely or successfully engage in the vigorous activities of the general physical education program."[1]

Rehabilitation through physical education is a reemphasis of the corrective physical education program which is as old as Per Ling himself. During World War II the "team approach" to the rehabilitation of casualties was developed. This enabled the doctor, together with physical educators, recreators and others, to make their particular contributions to the benefit of the patient. Sick and wounded service men returned to duty sooner and with fewer recurrences and complications because of this activity program.

The value of the physical activity approach has been abundantly demonstrated in Veterans Administration and other hospitals and in clinics and facilities for the handicapped. With the current emphasis on restoration of earning power physical education activities have proven of benefit in helping industrial casualties to make the most of their residual abilities.

It is estimated that 28,000,000 persons in the United States are handicapped to some extent by disease, accident, maladjustment or war. About 5,000,000 of these are children with marked physical, mental or social deviations who need something different or in addition to the usual school program. Less than one-quarter of these children are now receiving the special education they need through specially designed schools and classes. A small number of workers trained in the newer rehabilitation techniques make a big difference in making lives more satisfying for these physically handicapped children. For older persons suffering from chronic disabilities and in the field of mental health, the nation's number one health problem these methods have great potential.

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[1] Statement on Guiding Principles for Adapted Education prepared by the AAHPER Committee on Adapted Physical Education and endorsed by the AAHPER Board of Directors and the Joint Committee on Health Problems in Education of the American Medical Association and the National Education Association.

The implications of the foregoing to the physical education departments in colleges and universities of the country are obvious. There are two major responsibilities that fall under the heading of rehabilitation. First, the necessity for providing an adapted physical education program for students who because of disability or limitations cannot or should not participate in the regular program. Second, the responsibility for adequately training special teachers of adapted physical education to carry out these programs at all levels in the schools from the elementary through the college level.

Adapted physical education has much to offer the individual who faces the combined problem of seeking an education and living most effectively with a handicap. Through physical education the individual can:

(a) be observed an referred when the need for medical or other services are suspected;

(b) be guided in the avoidance of situations which would aggravate the condition or subject him to unnecessary risks or injury;

(c) improve neuromuscular skills, general strength and endurance following convalescence from acute illness or injury;

(d) be provided with opportunities for improved psychological adjustment and social development.

The direct and related services essential for the proper conduct of adapted physical education should be available to all schools. These services should include:

(a) adequate and periodic health examinations;

(b) classification for physical education based on the health examination and other pertinent tests and observations;

(c) guidance of individuals needing special consideration with respect to physical activity, general health practices, recreational pursuits, vocational planning, psychological adjustment and social developments;

(d) arrangement of appropriate adapted physical education programs;

(e) evaluation and recording of progress through observation, appropriate measurements and consultations;

(f) integrated relationships with other school personnel, medical and its auxiliary services and the family to assure continuous guidance and supervisory services;

(g) cumulative records for each individual, which should be transferred from school to school.[2]

Arthur Daniels who has been chairman of the Committee that developed the foregoing statement has asserted that the program of adapted physical education consists of three main areas. These are (a) Special conditioning activities. These consist of specific and general developmental exercises selected to increase general strength and endurance, improve coordination and improve physical function. (b) Recreational sports and games. A wide selection of sports, games and rhythms offered for their developmental, adjustment, recreation and socialization values as related to student needs. (c) Aquatics. Standard aquatic activities selected to meet remedial, adjustment, recreational and safety skills of students.

There is at present a serious shortage of trained teachers of adapted physical education. The number of teachers adequately prepared in this field is unknown. It is estimated that there are only between 1,000 and 1,500 such teachers available today. It has been estimated that some 17,500 are needed to adequately carry out this program in the schools and colleges. Specialized training and experience should be obtained through graduate study and internships. Only a dozen colleges and universities are offering full-time graduate programs in this field.

Recently a sub-committee of the Health Resources Advisory Committee stated that it believed the greatest contribution which the profession of physical education could make to rehabilitation and care of the chronically ill is the expansion of programs of adapted physical education. This applies to the college student as well as the pupil in elementary school.

We must not forget that it is a tenet of our democratic faith that all students regardless of their ability be given the opportunity to be as fit as possible. This includes those with handicaps and limitations as well as those without them.

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[2] Ibid

ORGANIZATION AND ADMINISTRATION OF ADAPTED PHYSICAL EDUCATION

Thomas M. Scott
University of Florida

The organization and administration of any program of physical education must adhere to the objectives for which it was set up. At the college or university level, the student's concept of physical education must become a broadened and enlightened one. For the physically limited student, this is of paramount importance and might be considered one of the primary objectives of adapted physical education programs. To this end, then, does the administrative machinery exist.

The term ''excellent'' may be used synonomously with ''adapted'' in referring to the physical education program. A program cannot be considered an excellent one unless it fulfills its potential and obligation to satisfy the needs of all students.

A qualified staff member should be given administrative responsibility for the adapted phase of the program under the department head. This includes authority to handle all administrative details concerning the physically limited students. The department head must be responsible for the ultimate decisions, but often finds it impossible to manage all the administrative details concerning the adapted phase of the program.

Sufficient credit should be allowed on the work load of the adapted program director to allow time for guidance and counseling, personal conferences, follow-up of students in the activity program, liaison between the department and medical doctors who supply the necessary medical information, and other administrative details.

In order to conduct successful counseling conferences, where details of a personal and confidential nature are sometimes discussed, sufficient and appropriate office space should be available. No one factor is so deterring to the counselor as attempting to talk to a student about confidential matters in the presence of noise, confusion and the curious natures of others.

Efficient and harmonious lines of communication must be established and maintained between the department and the medical doctors upon whom you rely for medical information about students. In many cases these lines of communication are difficult to bring into being, and in most cases they are difficult to maintain. Because of certain inherent factors such as rapid turnover of personnel in both departments, lack of time available to the doctor, and lack of physical proximity, it becomes a constant responsibility to maintain the proper relationship with the medical doctors. This is also true of other medical personnel such as nurses, physical therapists, administrative officers of the student health service.

The director of the adapted phase of the physical education program should affiliate himself with as many persons and agencies as possible who can in any way help him in dealing with the varied problems of the physically limited student. Examples of these affiliations might be: Housing, offices of the Dean of men and women, student health service, university counselors, residence advisors, clinical services, and vocational rehabilitation personnel.

There must be wholehearted cooperation between the director of the adapted program and the department head and his staff. If individual instructors are to teach physically limited students in activity classes, they must understand the particular limitations of those students in their classes. There should be some way to distinguish the students from others in classes without letting other students know what the limitations are. This can be done simply by using a different color card in the roll book, or marking an attendance sheet. The limitation should be near the student's name, however, so the instructor is always aware of the students who have limitations, and exactly what they are.

This brings up the question of record keeping, which is an extremely important part of the program for limited students. In view of the medical aspects of the adapted program, certain records should be kept up to date and certain changes must be made in activity attendance for limited students. This implies then, that some clerical help should be provided.

Facilities should be provided so the program can offer exercise therapy as part of the curriculum. A well planned program of exercise therapy can often serve the physically limited student when sports activities are contraindicated.

Finally, administrators should strive constantly to broaden the offerings of the activity program so that each of the physically limited students is able to enjoy the benefits of the physical education program.

SOCIAL AND PSYCHOLOGICAL ADJUSTMENT PROBLEMS OF THE HANDICAPPED

J. A. Fischer
Kent State University

This report is based on selected case histories in the adapted program at Kent State University. Also utilized are some of the case histories in the swimming program for the handicapped on Saturday mornings which is open to children and adults in the community. This program is provided by the University as a community service and is also utilized as an instructional laboratory experience for students taking the professional theory class in adapted physical education.

Briefly stated, the adapted physical education program consists of a wide range of individually-prescribed activities, including special conditioning exercises, swimming therapy, recreational sports, and educational therapy adapted to the students' needs, capacities, and interests. The activities are selected for their remedial, therapeutic, adjustment, recreational, and resocialization values.

A case history is kept on all the students enrolled in the adapted section. The case histories of these individuals include the results of the medical examination and recommendations from the supervising physician, program objectives and controls, results of special consultations, treatments, referrals, and student autobiographies and evaluations.

The student writes two papers which are included in his file. The first paper includes a brief autobiography, a discussion of the causes and effects of his present condition, the possible adjustments that it will be necessary for him to make, his life ambition, objectives he hopes to attain, and what he expects from this program.

The paper at the end of the quarter consists of an evaluation of the course, his achievements, skills that he has learned, possible change of outlook, other accomplishments, and criticisms while participating in the adapted physical education section.

A basic assumption of the writer is that in many instances the adapted physical education program can make its greatest contribution in the social and psychological adjustment problems of handicapped individuals. Achieving individual and group recognition, the fun of competing in recreational activities, recognizing their own abilities and shortcomings as well as that of others, and being able to fulfill requirements of daily living which were thought impossible previously are expressed many times by these students.

In many instances, the previous experience of the handicapped has been one of rejection, frustration, disillusionment, despair, and insecurity. These emotional problems can be greater stumbling blocks to the proper adjustment of the individual than his physical limitations.

As Dr. William C. Menninger, President of the Psychiatric Association, stated while addressing the Annual Convention of National Society for Crippled Children and Adults: "There is current recognition that crippling can be, and often is, more emotional than physical."

And, as Arthur S. Daniels says: "The big problem for the majority of handicapped persons appears to be that of closing the gap socially and psychologically, which exists between them and the rest of society."[1]

It is recognized that many conditions are not amenable to physical improvement by means of the adapted physical education program. Examples of some of these conditions are: epilepsy, post-polio, cerebral palsy, certain heart conditions, amputations, deafness, skeletal malformations, and others. In these instances, the pricipal contributors of this program are primarily social and psychological rather than physical improvement.

A graduate class at our university in the summer of 1955 set up criteria by which they hoped to measure to some degree the effectiveness of the social and psychological progress of the students in the adapted section. Forty case histories of the handicapped students were utilized.

This student committee report is by no means a comprehensive study, but is to be considered in the light of certain student limitations. Nevertheless, it is felt that it has come value.

Criteria for the Social & Psychological Aspects of the Adapted Physical Education Program at Kent State U.

	Insufficient Evidence to Evaluate	Great Degree	Mod. Degree	Small Degree
1. Were the activities enjoyed?	7	24	9	0
2. Were his goals achieved?	11	17	8	4
3. Did he express a desire to continue the activities?	6	28	2	4
4. Did he show evidence of social rehabilitation?	14	17	7	2
5. Did he understand his disability?	5	25	7	3
6. Did he express less self-consciousness concerning his disabilities?	18	15	4	3
7. Did he solve his problems?	13	14	12	1

Analyses of the term papers were the primary sources of information. Comments made by the instructor during consultation in certain cases were also considered.

The autobiography at the beginning of the quarter as compared with the final evaluation term paper provided the material for the subjective judgments in the above table.

It might be desirable to cite some excerpts from these case studies.

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[1] Daniels, Arthur S. Adapted Physical Education. New York: Harper & Brothers, 1954, p. 78.

Some cases were rather difficult to analyze. For instance, a student 38 years of age with a condition described as atropic knees (dry joint) stated:

> There is no improvement in my knee trouble that I can see. I like the gym work very much. I still do not care for swimming for the reason I gave at the beginning of the course (religious - not wanting to disrobe).

When he was sent back to the doctor for the recommendation as to the type of program he should take next quarter, the doctor recommended that he be permanently excused from further participation due to his age, attitude, and physical condition.

The following quarter was one week old when the above-mentioned student walked into class. Even though he was excused from his remaining physical education requirement he reconsidered his previous position and came back. Because he was older, the other members of his class called him "Chief." He received recognition for his diving and swimming. He enjoyed the informal relationships with his classmates. To him, this was the most enjoyable experience he had in school.

Group recognition was very important to this individual suffering from severe scoliosis:

> I am glad that I had the opportunity to take this course not only because of the exercises and games I learned, but because I met and associated with several fellow who will be my friends from now on.

In another instance a student with muscular dystrophy (prognosis negative) showed no progress physically. His statement is as follows:

> At the beginning of the quarter my chief objectices were: to be able to learn to coordinate myself better and be able to run again . . . .
>
> I have failed completely to attain my goals! But just one minute, I don't really feel that way. If feeling better internally counts, then I am satisfied. I have gained life-long friends in Charlie, John, and Roy. Besides these friendships, I have discovered a variety of sports like golf, box hockey, swimming, and bowling which I never dreamed I'd ever attempt. Much to my surprise I found I liked them very much. I gained something once lacking - an increase in self confidence.

An expression of greater security and more confidence is evidenced in the words of a student whose condition is recurrent dislocation of both shoulders:

> Despite a normal resistance to classes in general, I find myself looking forward to the adapted physical education class . . . . I now feel more relaxed and more confident.

An expression of not wanting pity and being normal in social relationships with the opposite sex is evidenced by the case of congential dislocation of both hips — right hip completely ankylosed:

> Learning to bowl was also quite an experience for me. It means that I can now participate in a sport that I was unable to participate in

> before. Participating in sports enables me to get acquainted with more people and not to be just an extra person standing around for people to pity, but to be one of the group; now I can take my girl friend bowling (she's not too good, however).

Fear, anxiety and rejection is explained by a person with a cardiac conditions due to rheumatic fever:

> I was hesitant and afraid to enter this course. Now I'm glad I did. I had never had physical education and I did not know what was expected of me. I was nervous and afraid that I would not be accepted by the other fellows. They have accepted me and are my friends. I have learned to swim; to me this is a dream come true. Last summer I felt left our - now I can join the rest of the gang at the lake.

A student whose condition was described as chronic arthritis of the spinal column, marked scoliosis, shows recognition of his abilities and disabilities as well as of others, and points out the importance of understanding in the field of teaching:

> One good result of the course was my chance to get to know some individuals who have a far more valid claim to physical illness than I have. These young men were a source of wonder in the marvelous adaptations they have made to their limitations. . . . . I think the most valuable thing I have learned from the course for my planned profession (teacher, speech, theatre, forensics) is: accept students for what they are and start from there.

It is recognized that the adjustment problems of handicapped individuals are no different than those of individuals who are not handicapped. However, these problems are magnified in the atypical because they are treated as a minority group by classmates, teachers and others. They are considered different and bring about a variety of responses from curiosity to mild dislike and complete rejection.

If a social setting, brought about by the media of adapted physical activities, properly conceived, can be arranged for these individuals, we have taken a big step toward providing a better adjusted person for society.

Understanding the individual and an adequate concept of the purposes of the adapted program can fulfill a great need in our total physical education program. Such a concept would include provisions for the achievement of group recognition, the fun of competition in recreational activities, the opportunity to overcome anxiety and fear, the chance to realize ones abilities, the opportunity to build up self confidence and to feel more secure, and to gain social acceptance among both sexes.

We must get away from the idea that the program is only corrective or restrictive, and recognize that sociological and psychological values are important and can be attained. We are not fulfilling our purposes if we stress only the physical values in the education of the handicapped.

MEASUREMENT APPLIED TO ADAPTED PHYSICAL EDUCATION FOR COLLEGE MEN

H. Harrison Clarke
University of Oregon

Considerable care should be exercised in the selection of measurements and other evaluative instruments for adapted physical education. This program will be judged locally in no small part by the quality of these procedures. Therefore, it behooves the physical educator to use the most valid tests available to him for the particular purposes he wishes to realize. Appropriate sources for such tests may be found in physical education, medicine, psychology, nutrition, anthropology, and other fields.

In this report, the tests selected are those appropriate for adapted physical education in colleges, rather than its counterpart in hospitals and rehabilitation centers. With few exceptions, these tests are utilized in physical education as a whole. Such tests, however, are largely limited to basic physical and social traits. In certain areas, available tests are well developed and may be utilized with considerable confidence; in other areas, they are meager and still rather crude evaluative instruments.

Selection of Evaluative Measures

The value of a test or examination is first judged in relation to the fundamental importance of the factor it measures; then, appraisal of its scientific worth should be made. Other things being equal, that test is superior which best meets proper test-construction criteria. All things considered, the following should be kept in mind when actually selecting evaluative measures to be used in local college programs.

1. The examinations and tests should be related to the functions of adapted physical education. These functions may be differently stated, but may well include treatment of students with the following conditions: low physical fitness, poor body mechanics, organic deficiencies and permanent handicaps, psychological and social maladjustment, malnutrition, chronic fatigue and neuromuscular hypertension, and unskilled motor ability. The first consideration, therefore, is to select evaluative measures which will reveal individuals with these conditions.

2. The evaluative process should reflect the particular emphasis of the local college adapted physical education program. As presently

practiced in the colleges of America, the nature of adapted physical education varies from institution to institution. Certain programs emphasize body mechanics; others, the physically handicapped; and still others, the low fitness students. Seldom is balance achieved among all possible functions. Among the reasons for these variations are the influence of tradition, the particular interests of individual physical educators, and the practical limitations imposed by insufficient local facilities and personnel. Thus, the adapted physical educator usually exercises his prerogative of placing emphasis where he feels it will do most good. The evaluative techniques selected, therefore, should be based upon such recognized and acknowledged emphases.

3. When local college programs must be limited in scope, the selection of examinations and tests may be based upon primary and supplementary functions. Usually, practical exigencies limit adapted physical education services in local institutions. As a consequence, the number of evaluative techniques applied to all students must be reduced. Their selection should be in terms of the basic functions to be achieved; these are considered primary measurements. Other tests, known as supplementary measurements, may be used to detect causative and associative factors in those selected with deficiencies through primary measurements. For example, a strength test may be used to detect those deficient in this basic physical fitness component; nutrition tests and social adjustment inventories may then be applied to the sub-strength group to determine if deficiencies in these conditions are also present.

4. Once the type of test needed is determined, the tests with the best scientific bases should be chosen. The main scientific elements to be considered are the validity and accuracy of tests and the availability of norms. The evaluation of these elements is well known to college physical educators.

5. The economy of tests must frequently be considered. In considering the economy of tests, two factors are involved: the cost of testing equipment and the time required for their administration. Ways, however, should be found to surmount these difficulties if such tests are of fundamental importance in conducting adapted physical education.

Satisfactory tests may not always be available for desired purposes. And, in some instances, the physical educator may be interested only in marked deviations, where a rough screening device only is needed. In these instances, a crude measuring instrument may suffice or recourse may be had to subjective appraisals.

Review of Evaluative Measures

A brief review of the various types of evaluative measures and their uses in adapted physical education will now be presented.

Medical examination. The medical examination must necessarily be the starting point for any evaluative process related to adapted physical education. The primary service is to detect students with serious defects, os such a nature that vigorous exercise would be harmful to them. Such defects include: organic heart lesions, respiratory involvements, hernia, kidney ailments, malnutrition, orthopedic handicaps, nervous disorders, digestive disturbances, general debility, and the like. The physical educator should see to it that the college physician understands the purpose, nature, and procedures of adapted physical education. Informed physicians, who understand modern concepts of physical education, believe in its significance for young men and give enthusiastic support to well conceived and conducted programs.

Nutrition tests. The purpose of nutrition tests is to discover those who are under-nourished and those who are obese in order that appropriate remedial procedures may be applied. Such evaluation may be utilized for all students as a primary measurement or may be used as a supplementary measure to determine causative or associative factors in those students selected for adapted programs for other reasons, such as low fitness, organic conditions, faulty posture, and the like.

For years, age-height-weight tables have been used as indices of nutritional status. Researches, however, have cast considerable doubt on the reliance that can be placed on this form of nutritional measurement, largely because body build and the proportions of bone, muscle, and fat are not considered in determining the amount one should weigh. Although a number of other nutritional measures are available to physical educators, three only will be mentioned here, as follows: (1) The Pryor tables (24) base body weight upon the following three anthropometric measures indicating body build; chest breadth, bi-iliac diameter, and standing height. Weight tables are available for both sexes and each age from one to 24 years. (2) In his work with somatotypes, Sheldon (25) constructed age-height-weight tables for each of the 88 somatotypes contained in his Atlas of Men; ages are from 18 to 63 years. Where somatotyping is done, these tables should prove of special value as norms for proper weight. (3) Adipose tissue measurement with skinfold calipers may be used as a test of the relative amount of fat on the body. The recommended sites for taking these measurements are posterior surface of upper arm, inferior angle of scapula, and abdominal region lateral to umbillicus. In addition to objective nutrition tests, signs of the effects of malnutrition on the body should be observed. (4)

Somatotype. Sheldon (25) has described the following three components of body build: (1) endomorphy, a preponderence of soft roundedness throughout the various regions of the body, with mass concentrated in the viscera (Santa Claus); mesomorph, a heavy, hard, rectangular physique, with rugged massive muscles and large prominent bones (Hercules); and (3) ectomorph, a frail, delicate body structure, with thin segments anteroposteriorly, the skeleton is long for the length and breadth of the chest (Ichabod Crane). Sheldon recognizes that all individuals have varying degrees of each component, designated on a seven-point scale. Thus, a 4-4-4 describes the constitutional type of an individual with an equal and moderate amount of all three components.

Somatotyping is not a test of body status directly related to an atypical condition. Instead, it is a basic frame of reference for the proper understanding and interpretation of the results of other tests. For example, in utilizing the Physical Fitness Index, the average for the dominant endomorph is approximately 85; for the dominant mesomorph, about 110; and for the dominant ectomorph, near 100. (29) Likewise, tests of posture, flexibility, endurance, or circulatory-respiratory functions may be understood more clearly against the general background of such a body-build indicator. Furthermore, the individual's reaction to exercise is reflected in part by his somatotype: the extreme mesomorph enjoys strenuous exercise and usually excells in athletics; the extreme ectomorph is prone to fatigue easily; and the extreme endomorph is inclined to avoid physical exertion.

Strength tests: Although they do not measure all aspects of physical fitness as the physical educator views the problem, strength tests do evaluate a basic element of the individual's general physical status. The Rogers Physical Fitness Index (7), or PFI, has been used for many years in college adapted physical education programs to measure muscular strength and muscular endurance. This battery consists of four muscular strength tests (right and left grips, back and leg lifts), two muscular endurance tests (pull-ups, push-ups), and lung capacity. The Strength Index is the gross score from these seven tests; it is used as a measure of general motor ability. The PFI is a score derived from dividing the achieved Strength Index by a norm for the individual's sex, weight, and age. While a score of 100 is average, students in any college may range from PFI 40 or less to PFI 160 or more.

The selection of individuals with unsatisfactory PFI's for adapted physical education should include at least three groups, as follows: (1) those with low scores, as the definitely weak obviously need attention; (2) those with declining scores, as drops in PFI, regardless of their levels, may indicate undesirable changes in physical condition; and (3) those with high scores (possibly, 150 and above), as such individuals may be high strung, overstimulated, and nervous, who would benefit from relaxation programs.*

Circulatory-respiratory endurance. Physical education has long been concerned with exercise for the development of circulatory-respiratory endurance. Efforts to measure this component of physical fitness have taken two directions: (1) tests of circulatory-respiratory functions based on the premise that the endurance of the body is dependent upon the efficiency of these systems, hence, a measure of one is a measure of the other; and (2) tests of running endurance. Unfortunately, neither of these approaches has proven sufficiently satisfactory. The correlations of tests of circulatory-respiratory functions with total-body endurance criteria are generally low. For example, Cureton and associates (11) obtained correlations between .002 and .31 between the Harvard Step Test and 27 different measures of muscular strength, muscular endurance and distance running events. It should be added, however, that a modified form of the step test was found satisfactory by Karpovich, Starr, and Weiss (15) in evaluating the condition for participation in physical activity of convalescent patients in army hospitals who were recovering from severe respiratory illness.

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*In this latter situation, it should be stated that some students will have developed high PFI's through various types of strength-building activities and may not in the least be hypertensed.

So far, the various running indices, such as the endurance ratio (proportion between times on short and long runs) and drop-off index (slowing up in seconds for various parts of a long run), have not proven satisfactory as measures of circulatory-respiratory endurance. Potentially, they appear to have greatest possibilities for this purpose.

Motor fitness tests. Motor fitness is a limited phase of general motor ability with emphasis on the underlying elements considered necessary for vigorous physical activity. It is a composite of factors including muscular endurance, speed, agility, running endurance, and power. Motor fitness tests reflect this composite, and are typically designed to sample the elements involved. Usually, these test batteries consist of such items as pull-ups, push-ups, sit-ups, squat-thrusts, broad or vertical jumps, and shuttle runs. They are arranged to secure ease of administration; little training is required to master the testing techniques; with good organization, a large number of individuals can be tested in a short time by a few testers; and, in some instances, self-scoring is encouraged.

The armed forces led in the construction and use of motor fitness tests during World War II, although several such tests have been designed for school use. Mathews, Shay, and Clarke (19), with good condition college men majoring in physical education, obtained high correlations between the Army test and the Navy (.88) and Air Force (.86) batteries; the correlation between the Navy and Air Force tests was .48. Some physical educators, however, hesitate to use the Army and Air Force tests because of the necessity to administer a 300-yard shuttle run to men who are not conditioned for it. Koski (16) has found that a modified form of the A.S.T.P. test works well in selecting college men for special conditioning work. Other tests of this sort which are available for college men are the following: Victory Corps Tests and Standards (26), Indiana Motor Fitness Tests (3), University of Illinois Motor Fitness Tests (10), and the JCR Test (23).

Cable-tension strength tests. Cable-tension strength tests, utilizing a modified form of the aircraft tensiometer, have been devised by Clarke (6) to measure the strength of 38 individual muscle groups. These tests originated for objectively measuring the strength of muscle groups affected by orthopedic disabilities. Abramson (1), after trial of the tests at the Bronx Veterans Administration Hospital, recommended their use as a means of measuring functional disability: to determine the strength developed by isotonic muscle contraction and the strength exerted by muscle groups throughout the range of motion of the activated joint.

Strength decrement. The Strength Decrement Index, proposed by Clarke, Shay, and Mathews (9), is the proportionate strength loss of individual muscle groups after fatiguing exercises. Cable-tension strength tests are given to particular muscle groups before and immediately after exercise. The SDI can be used in adapted physical education, then, to measure the amount of fatigue in exercised muscles. This procedure may be desirable to determine exercise routines for individuals in a convalescent state, upon returning to classes after illnesses, accidents, or operations, and for those with weakened musculatures resulting from various diseases and orthopedic conditions.

Flexibility. Adapted physical education is concerned with flexibility from two points of view: the range of motion of individual joints, particularly those involved in orthopedic conditions; and general body flexibility, especially the large trunk mass. Goniometry, or the use of instruments for measuring the range of motion in joints of the body, has been presented in medical and allied literature since the turn of the century. (21) There are many types of goniometers available for this purpose. The Leighton flexometer (18) is another instrument designed for this purpose and will also test general trunk flexibility. For screening purposes, the Kraus toe-touch test (17) may be utilized to select those with gross lack of back and hip flexibility.

Body mechanics. From its early origins in the United States, physical education has been concerned with the treatment of functional posture and foot defects. Many testing devices have been proposed in this area. Certain of these are simple and easy to administer, frequently resulting in only general estimates of posture status; others are detailed in their application, requiring various types of special equipment. Nearly all proposals for positive measurement evaluate the individual in the standing position.

An excellent subjective posture appraisal is described by Phelps, Kiphuth, and Goff. (22) The position or alignment of the following items composing posture is evaluated separately: neck, shoulders, thoracic spine, lumbar spine, pelvic tilt, overcarriage, chest, abdomen, lateral spinal deviations, knees, and feet. Among the many objective posture appraisal schemes are the following: The Springfield postural measurements (12) combine linear measurements on an improved conformateur with angle measurements on a silhouette to evaluate many of the items assessed by Phelps, Kiphuth, and Goff. Similar appraisals were made by Wickens and Kiphuth (28) from angles on a photograph of subjects to whom were affixed aluminum pointers in order to locate specific body locations. Blesh, Meyers, and Kiphuth (2) have described Photo Metric equipment, which, by use of mirrors, permits photographing front, rear, side, and overhead views of the subject in a single exposure; again, measurements similar to the above are taken. Howland (14) has developed a body-alignment technique based on the principle that a balanced relationship exists between the tilt of the pelvis and upper trunk and the long axis of the separate body parts as they approximate the line of gravity of the standing body. Clarke and Shay (8) have described the scoliometer and taut-string tests for assessing the amount of lateral spinal deviations; the instruments needed in these tests are simple and easily made or acquired.

Social and psychological tests. Unfortunately, physical education tests related to social and psychological adjustment are very meager, being limited to one or two rating scales. Thus, the adapted physical educator must turn to the inventory-type tests developed in psychology. Among those that have implications for physical education are the following: Guilford-Zimmerman Temperament Scale (13), California Test of Personality (5), and Washburne Social Adjustment Inventory (27). The Mooney Problem Check List (20) may also be useful in identifying the various personal problems students may have. In utilizing tests of this sort, the physical educator should realize that he is not a trained psychologist, and, therefore, should understand the importance of referring problems encountered in this area to guidance or psychological personnel when they go beyond his competence.

Summary

In this report, various tests of value for adapted physical education have been considered. With few exceptions, the tests presented are utilized in physical education per se, although their selection here has been limited largely to basic physical and social traits.

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THE DEFENSE OF THE PHYSICAL EDUCATION REQUIREMENT AT THE UNIVERSITY OF ILLINOIS

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In the year 1956-57 we were forced to defend the program in physical education as a requirement for graduation at the University of Illinois. This program has been in operation since 1895 and has varied from a two-semester to an eight-semester requirement. During most of this time, however, the University of Illinois has required four semesters of physical education for graduation.

How the Problem Developed

A study of the causes of our problem at Illinois might possibly be helpful to physical education faculty of other universities in avoiding difficulty. The following analysis of why the requirement was challenged is based on observations by this speaker and does not necessarily represent the opinions of any other member of our physical education staff.

Our University is governed by a Senate. All full professors are automatically members of this body. Major changes in curricula in any division of the University must be approved by this group of professors. Before voting on such matters, a Senate-elected Committee on Educational Policy studies all suggested changes and presents their recommendations to the Senate. It was during the last yearly meeting of our University Senate in 1956 that a motion was made to study the University Physical Education requirements with a view to their elimination as University requirements for graduation. This motion passed and the matter was referred to the Committee on Educational Policy.

Some members of our department had ostensibly ''tread on the toes'' of certain professors in other departments and there was ''feeling'' behind the motion to eliminate our program. However, our real danger was not from this small number who were ''angry'' but rather from the ''scholastics'' who are always among us, and from the ''local autonomists'' who believe that basic requirements should be established by the individual colleges. These two categories represent a fairly substantial number in our University.

How We Met the Attack

The Committee on Educational Policy was asked to study the program of required physical education at our University and to make recommendations for the guidance of the University Senate in arriving at a final decision. Our job then was to convince this committee that our program should be continued as an "across-the-board" requirement for graduation. We used a variety of techniques to acquaint the Committee on Educational Policy with our program in physical education and with the need for physical education at the University level. These techniques are listed below:

1. Welcomed the Study. We immediately made it clear by letter to chairman of the Committee on Educational Policy that we welcomed investigation and that we felt that all curricula of the University should be carefully studied at intervals.

2. Physical Education Film. A number of years ago we completed a film showing the various activities in our required physical education program. This sound film gives the viewer a reasonably good idea about our philosophy, objectives, and program. We exhibited this film before the Educational Policy Committee.

3. Outline of Ojectives. We provided each member of the Committee on Educational Policy with a statement of the philosophy and objectives of the Service Program in physical education at our University.

4. Surveys of Other Colleges and Universities. We provided the Educational Policy Committee with survey results showing what other colleges and universities were doing in this area of higher education.

5. Student Opinion Survey. We conducted a student opinion poll in our physical education classes to determine whether or not the students in our classes were in favor of continuation of required physical education.

6. Invitation to Visit Us. We invited members of the Educational Policy Committee and all of the University Senate to come to our gymnasia and see our program in action. A number of them responded to this invitation.

When the matter finally came to vote at the last yearly meeting of the University Senate in the Spring of 1957, there was only one vote against the continuation of our program. This does not mean that every member of the Senate except one is solidly behind our program in physical education. Undoubtedly there were others in this group of professors who were not too sure that we belonged but apparently they did not feel strongly enough about the matter to put themselves on the line. Those who initiated the attack did not appear at this meeting.

What Can be Done by Physical Education Departments of Universities to Avoid Crises Such as We Experienced at Illinois

1. Satisfied Students. Probably one of the most effective methods of avoiding pressure to drop required physical education is to satisfy your students. If the majority of the students in your program do not feel that the work is worth while, then some reorganization should be in order. Student opinions and ideas should be solicited.

2. Pooling Efforts with Other Departments. If you are conducting a research program in physical education, it is suggested that you take steps to make your research a joint project with the departments of nutrition, physiology, psychology, and sociology.

   It might also be wise to ask specialists in areas of science basic to physical education to critically read magazine articles and certain sections of professional books in physical education before publication. It is an act of courtesy to ask the University medical officer to check over the technical aspects of a magazine article dealing with therapeutic exercise or correctives. While the physical educator may feel better qualified in these matters than the medical doctor concerned, the backing of this man is invaluable.

3. Dissemination of Written Materials. At various times the faculties of the University should be provided with informative materials to help them understand the philosophy and objectives of physical education at this level.

4. Invite Observation. The members of University administrative bodies should be personally invited, at intervals, to attend programs sponsored by the physical education department.

We are sponsoring our first open house this year. We do not know as yet how well it will work. In our open-house plan we are copying, in some respects, the Michigan State University plan initiated at East Lansing in 1956.

SUGGESTIONS ON SELLING THE REQUIRED PHYSICAL EDUCATION PROGRAM TO A UNIVERSITY FACULTY

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There seems to be a growing tendency for some faculties in colleges and universities to question the requirement of service programs of physical education for all students. This is true not only of a four year requirement, but even sometimes of a one or two year requirement. I feel that in many specific instances, these faculties have a point: the physical education program is in many cases, in my opinion, vulnerable. We physical educators are often very careless in our planning. All of us have seen programs that we would personally not approve. I shall here make some suggestions that may stimulate thinking.

1. We in physical education suffer from the fact that our subject in many, if not most universities around the world is not considered what the Germans would call "a wissenschaftliches" – or "scholarly" subject. From the history of education, it will be recalled that early in the century, the same was true of many of the sciences, such as chemistry, and later was true of sociology, of political science, of economics, and of many other subjects: they got in one by one over the protests of the humanists. Physical education suffers much more acutely from the same phenomenon. These other subjects that crept in one by one were at least subjects where one had to study and remember: all too frequently, faculty members today think of physical education primarily in terms of breathlessness and sweat. I feel that to give in to a few faculty members, in even our own ranks, who think of physical education only as fitness, is dangerous! Others may be led to that puff-and-sweat conclusion and vote against it – for very many faculty members who are non-athletic and who are out of condition have inferiority feelings that cause them to pooh pooh all of fitness talk, and we would lose that kind of vote. Remember that the sciences, and some of the "social sciences", got in because the faculty in those subjects could prove that one had to study and learn to master the subject matter, and that such knowledge was useful. Hence, I feel that we should not stress solely the fitness angle.

2. Most other subjects in the curriculum could be proven to have a lot of useful-in-later-life-appeal. Even a man who studied chemistry and later became a teacher of history will admit that his chemistry-knowledge helps in understanding the literature of the day. Can we make this case for a physical education that is never practiced later after

the student graduates? We can if we teach the right type of programs. Let us not be vulnerable by teaching things we cannot defend with strong logic.

3. We also suffer from one other argument: much of what we have to teach should have been — and could have been under proper circumstances — taught and mastered in the upper grades and in the high school. We are frequently teaching "make-up work." Well, we have come to the place where we admit a certain amount of that in English and in mathematics — and the first of which is all too frequently admittedly atrociously taught in the high schools, and the second often completely omitted. So we have a point in teaching some make-up work in physical education, if the pupil has missed this type of thing in his previous educational experience, but not in requiring it of every student, some of whom are as expert in motor skills and are as fit as are their instructors! This is true especially of athletes who in addition to their sports have been trained in YMCA's or athletic clubs, country clubs, etc. We can get out of this criticism (of requiring elementary work of well prepared students) by using a testing program and excusing the well prepared motor literates just as the English make-up classes excuse those who are well prepared (we do this at the State University of Iowa where the faculty has approved the two-hour periods per week, with two semester hours credit per semester, for those who cannot pass our requirements, which are a performance test of physical fitness, and tests of adequate skills in six sports, of which not more than two may be team sports. In other words, at least four of these sports tend to be those the individual can do after he gets out of school, if facilities are available.

Now that some of these difficulties have been presented, I should like to make some positive suggestions.

1. Do not put all of our eggs in one basket. For example, if we talk only fitness, we lose much support. If we talk only sports, and their alleged carry over values, we lose the support of others. In the field of English, for example, we do not push only correct writing and speaking; we push literature and we push appreciations as well. Let us diversify our offerings and give some of each of the types of activities that lead towards different worthy objectives.

2. When presenting our offerings, we should be careful of how each is worded. For example, if I were a professor of mathematics I would probably look askance at an offering labelled "Circus Stunts." "Advanced Tumbling and Apparatus Exercises" as a heading for this class would carry much less prejudiced emotional dynamite.

3. Use illustrations skillfully: many faculty men and women are influenced by such illustrations. For example, for the man who questions

the need for more strength in the average person, illustrations like these may help greatly.

(1) "Let us suppose that during the winter when the weather was cool, you were urged to wear under your shirt a jacket weighted with lead up to about thirty pounds, and to wear this from the time you arose in the morning until you retired at night. Your reaction would probably be 'Don't be silly: if I did that I would be all-in by ten o'clock in the morning.' You would, of course, be correct. But an individual who is 'under-muscled thirty pounds,' is just as badly off. For example, an individual who weighs one hundred and fifty pounds, but has a musculature adapted to carry only one hundred and twenty pounds, will be over-weight in the dead-weight line thirty pounds, and he also will be all-in by ten o'clock or noon."

(2) This second illustration will often carry with the individual who ridicules the need for any more strength and declares that he is not interested. "Suppose you were equipped with a rheostat on your abdomen by which by simply turning the lever up or down you could become weaker or stronger. If you turned it down thirty per cent, you would probably have to be helped out of bed, because you would be too weak to help yourself. Would you leave it where it is? Or — remember all you have to do to become stronger is to turn the dial up a bit — would you turn it up twenty per cent, thirty per cent, forty per cent? I think that most of you, if you could become strong that easily, would turn it up to the point where you were strong enough that you could toss yourself around all day, up and down stairs, without becoming fatigued, simply approaching bed time sleepy, but not tired."

I should suggest that some thought be given to the production of many other illustrations such as these.

4. Use analogies skillfully. For example, in teaching English the professors of English want to develop writing skills. Here you can develop an analogy with motor skills and this analogy can be developed greatly. I would press for the development of correct motor habits, and stress the need to correct the incorrect motor habits, that have been developed in the past. You can make a good analogy of this kind with good and poor language habits developed by good and poor teaching of English. These professors of English would then want, in addition to good writing habits, an introduction (and further dipping into) English literature both prose and poetry. Here you can develop analogies with the need for a knowledge of and an appreciation of sports and sports skills. These English professors like to produce more students who can write good literature (the advanced courses taken only by a few) and likewise we can show the desirability of developing good advanced skills in the carry over sports, the kind of skills that last one a life time.

5. We are very frequently vulnerable to the criticism that most of what we teach does not carry over — often because of lack of facilities, but often because of poor teaching (physical educators are not the only ones vulnerable to the criticism of poor teaching: this is found in every department). We should, I believe, stress offering that we can demonstrate can carry over. For example, even if one lives in a fifteen story apartment in a large city, he can exercise at home if we teach him how. For example, he can do home exercises, with freehand calisthenics, with dumbbells or barbells, with springs, etc. -- but we need to show him and to grind in the knowledge of how to adapt it to a morning work out. Many people who do home exercises like to do them in the morning. But when one jumps out of bed and begins to exercise, he usually feels a complete lack of inclination to go on. The reason is, of course, that too much of his blood supply has become stored in the splanchnic vessels of the abdomen. When he gets out of bed there is too little blood in the peripheral circulation; when he stands erect, gravity pulls a bit of it out of his head, and he has a temporary brain anemia — and an absolute lack of desire to go on. To teach the individual to do six or eight exercises in bed before he gets out, which will take perhaps three and a half to four minutes, will give him an introduction to the further exercises of a more strenuous nature which he takes when he gets out of bed, and he will feel as energetic as he would feel beginning a gym class at three o'clock in the afternoon. The trouble is that we almost never teach students this type of a routine of exercise.

While basketball courts, swimming pools, tennis courts, etc., may be lacking in most communities for more than about five to ten per cent of our adult population, many activities such as adapted deck tennis, Newcomb, two-on-a-side volleyball, featherball (2), badminton, smash, and about thirty other kinds of sports activities that can contribute to the fitness of the adult, may be played in basement playrooms or backyards — of which there are plenty in most American communities. Why not have a good pamphlet prepared by the Association on such activities, so that in one semester or even in one half semester these practicable carry-over sports could be demonstrated, participated in, or be seen in movies? The literature prepared (pamphlet) could be kept and used later by the graduated student. In other words, demonstrate that we give the students some real take home pay.

6. When talking to the Faculty Meeting about our program, why not show our wares, but especially show things that most faculty people would like to be able to do themselves? For example, when the faculty of the College of Liberal Arts at the State University of Iowa was facing the request of giving the students of that college two two-hour periods per week of physical education, mimeographed copies of the teaching outlines for tennis, golf, and swimming (activities many members of the faculty themselves would like to be able to do well) were presented. When these were presented and discussed a bit, I was stopped by

numerous faculty members after the meeting who said in effect, "I didn't know that you taught this kind of thing! I wish I could get this kind of instruction." As a result, our golf coach added some evening classes in golf (hitting yarn balls), which were taken by numerous faculty men and in many cases, by their wives. When faculty men and women would like to have had such instruction themselves, they are apt to approve it for their pupils.

7. Test, and analyze your records so that you can prove that much progress is made by the students. When you have proof that the student has made real progress, you have a sound talking point. This should be progress not only in fitness but in skills as well.

8. See to it that in your service program the teachers do good teaching. Much of the opposition from former dissatisfied faculty people stems from poor unimaginative programs, lacking both progression and good teaching. Prove this is not true of your programs.

9. Tell what you are doing to make your teaching good (if you are not doing anything to make it good, get on the ball or lose your requirement!). For example, most educators have been pretty well sold on applying the principles of educational psychology to better teaching. If you are not making such applications, why not check on the possibilities? (3)

Often teaching is poorly done because the teacher does not know how the skills should be correctly done. Here a knowledge of the mechanics of motor skills helps greatly. Most coaching books are full of factual errors — even when written by so-called expert coaches. I should suggest that you do some reading in this field (1), and study slow action motion pictures to fortify your knowledge.

Why not give some lectures on these procedures (the use of your educational psychological principles and mechanical principles) to your faculty? You will probably prove to them that you are doing a better teaching job than most of them are! This will not hurt your program at all. Of course, I would not be so undiplomatic as to tell them that you are doing a better job than they are!

10. I'll close by again emphasizing the need for a well-balanced, all-around program. (a) Teach a fitness program that is sensible, and that can carry over to the post-school-years situations. (b) Teach more sports skills that probably will not carry over, but which give laboratory practice in the learning of basic, racial-activity skills — that give some training "in the literature of physical education and athletics" as it were. (c) Have some theory courses in how to appreciate the major sports. These may be lectures by well trained coaches or physical educators accompanying motion pictures of your own home games. For

example, when looking at a major football game, different people do not see the same game. For example, a coach of another school, scouting that game, will see the offensive and defensive patterns, the plans for deception, the basic pass-defense formations, and many other things that a less well trained observer would not see. Many other people will be able to see something other than just watching the ball, they will see some of the blocking and will be able to anticipate some of the strategy that is used. A completely untrained person is apt to see twenty-two players scramble and unscramble, and in these days of deception, just possibly during a pass or a punt he will see the ball! It should be clear that one could teach even an inexpert person to see about six or eight times more in such a game than he sees as he goes to see the game at the present time. The film of many plays needs to be run back and forth three or four times to point out things to watch. The same type of thing, of course, would apply to basketball and other sports. Most faculty people would like to know much more of what goes on in the stadium or on the basketball court. Some education along these lines may be very profitable in helping you to sell your program.

One could go on for many more paragraphs like these. Most of you are highly trained in the area of physical education. Many of you have, however, done too little deep philosophical thinking about your programs. Almost all of you can think these things through. My final suggestion then is that we do some of this kind of thinking, exchange our ideas and experiences with each other, improve our programs, sell them better — and see if we cannot make twenty years of progress in the next five years.

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INTERPRETING PHYSICAL EDUCATION TO THE SEVERAL FACULTIES

THE U.C.L.A. STORY

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The purpose of this report is two-fold: (1) to summarize briefly the activities of the faculty in the Department of Physical Education in defending the lower division requirement of physical education at UCLA and (2) to submit recommendations for interpreting physical education to the several faculties.

Initiation of the Challenge. In light of expanding enrollments, higher budgets and increasing numbers entering the University as upper division transfers who are exempt from the physical education requirement, the Chancellor on September 27, 1956 requested the Committee on Educational Policy to give its opinion on the possible abandonment of the requirement. The opinion to be rendered by the Committee was of great significance to the Department of Physical Education in maintaining the character and stature in the professional field of physical education. A recommendation of a voluntary program or even discontinuance of a service program of physical education were possibilities as the Committee approached the problem. As deliberations proceeded, however, the choices were narrowed to recommend a voluntary or to recommend the continuance of the requirement with modifications.

Meeting the Challenge in the Department of Physical Education. A sub-committee of the Committee on Educational Policy was appointed and charged with the responsibility of studying the problem and making a recommendation. Dr. Ben Miller; Chairman, Department of Physical Education represented the faculty of the Department on the subcommittee.

Within the Department of Physical Education the problem was handled in the same way as any other problem would be handled where departmental policy was considered. The matter was discussed first with the Executive Committee composed of the Chairman, Vice-Chairman and the Men's and Women's Coordinators of Staff and Facilities. Since it was a curricular matter as well as a problem of policy, it was taken to the Advisory Council. This Council is composed of the Executive Committee, chairmen of the 8 curricular units in the Department, 2 representatives at large, a representative of the Alumni Association, and the Dean of the College of Applied Arts, (ex-officio). In these meetings it was made clear that the faculty of the Department of Physical Education should be positive in their approach to the problem. In addition, every effort was made to be objective and constructive in meeting the challenge. Such an approach proved valuable during later stages of the study when the problem was discussed before the entire Academic Senate (Southern Section).

The recommendations of the Advisory Council of the Department of Physical Education were then taken to the entire physical education faculty. The entire faculty in the Department of Physical Education went on record as 100 per cent behind the recommendations of the Advisory Council which included a strong recommendation to attempt to maintain the requirement. Through the democratic administrative channels operative in the Department of Physical Education the physical education faculty members were mobilized and participated wherever possible in assembling data necessary to make a defense of the requirement.

Exhibits Prepared for the Subcommittee

(1) All previous documents submitted to Administrative Officers were reviewed and brought up-to-date. Such reviews were made in 1949 and in 1952. Sound record keeping is advised for it appears that each defense of the requirement assists in warding off later attacks. In addition, much of the data is still pertinent and usable in defending the requirement.

(2) A document was prepared on the "Objectives of General Education and of Physical Education." The three main sources used in this statement were: (a) Higher Education for American Democracy, Volume I, Establishing the Goals. A Report of the President's Commission on Higher Education. (b) B. Lamar Johnson, General Education in Action: A Report of the California Study of General Education in the Junior College. This book was published by the American Council on Education, 1952. (c) Physical Education for College Men and Women, Washington Conference Report, October 4-6, 1954. Published by the A.A.H.P.E.R. These references provided the base for the objectives of college physical education. The latter document proved significant because the conference was sponsored by three national organizations involving 115 participants representing 84 colleges and universities, 37 states and the District of Columbia, and, in addition, represented 19 other cooperating organization.

(3) Three documents were prepared on the problem of fitness. These documents were based on the reports of the President's Council on Youth Fitness, the President's Citizens Advisory Committee on the Fitness of American Youth and the Conference on Fitness sponsored by the A.A.H.P.E.R. Important quotes from national leaders were included in these documents.

(4) A survey was made of 165 state and private universities and colleges. Important conclusions were drawn from this survey which supported a required program of physical education. For example, in

general, 95.6 per cent of all institutions reporting, required physical education.

(5) Data were secured through personal correspondence from the Universities of Chicago, Kansas and Minnesota where elective programs are carried on at the present time. Many insights were gained from this report concerning the voluntary program.

(6) A statement was prepared on ''Adapted Physical Education — A Referral Resource for the Student Health Service.'' The Adapted Program at UCLA was developed cooperatively with the Student Health Service and is medically supervised. It was pointed out in this statement that if the program of physical education was made voluntary, much of the specialized guidance, individual counseling and supervision, not available any other place on the Campus, would be lost to many students in the Adapted Program.

(7) A questionnaire survey was titled ''Opinions of Students Enrolled in Physical Education for General College Students (P.E. 1), Fall Semester, 1956.'' This document served a useful purpose in defending the requirement and, as well, served as a guide for curriculum planning in the required program. A continuous study, as indicated above, has evolved from the original study and a pilot course is projected to start in the Fall Semester 1958. This pilot course will give guidance to students in terms of their present needs in the area of human movement and total fitness.

(8) Dr. Ben Miller developed a statement as early as January 1956, ''Advantages of the Required Over the Voluntary Program of Physical Education.'' The statement was reviewed and endorsed by the faculty in the Department of Physical Education and submitted to the subcommittee studying the physical education requirement.

(9) Since the service physical education program at the University of California, Berkeley has been on a voluntary basis for more than 20 years a comparison was requested by the subcommittee concerning the nature of the program on the two campuses. This situation is interesting for both campuses are under the same administrative umbrella of the Board of Regents and the President of the University. A complete and thorough analysis was made of both service programs in physical education as well as the professional education programs on the two campuses. The following reports indicate the nature of the analysis:

(a) ''Scope of Physical Education for General College Students at U.C.B. and U.C.L.A., 1955-56.''

(b) ''Number of Different Activities, Number of Sections, and Enrollments in Physical Education for General College Students at U.C.B. and U.C.L.A., 1955-56.''

(c) "Section Size, Physical Education for General College Students, Departments of Physical Education, U.C.B. and U.C.L.A., 1955-56."

(d) "Faculty and Staff - By Rank, U.C.B. and U.C.L.A., 1955-56."

(e) "Comparison of Budget Data, Departments of Physical Education, U.C.B. and U.C.L.A., 1955-56."

(f) "Number of Courses Offered in the Departments of Physical Education, U.C.B. and U.C.L.A., 1955-56."

(g) "Enrollment Data, Physical Education for General College Students, Departments of Physical Education, U.C.B. and U.C.L.A., 1955-56."

(h) "Professional Students in Departments of Physical Education, U.C.B. and U.C.L.A., Fall Semester, 1955-56."

(10) Other reports were submitted to the committee studying the physical education requirement to present a clear picture of the total operation of the Department of Physical Education at U.C.L.A. Such reports included:

(a) "Graduate Student Enrollment in the Department of Physical Education."

(b) "Master's Degrees - Record of Conferrals by Calendar Years, 1949-1955."

(c) "Graphic Trends in Graduate Student Enrollment, 1952-56."

(d) "Approved Full Time Teaching Equivalent Positions in Annual Budgets, 1951-52 through 1957-58."

(e) "Approved Annual Budgets, 1949-50 through 1957-58."

Although the task of assembling all the documents was a large one requiring considerable time and energy of the administration and the faculty, it was a necessary step. The presentation of objective data informed members of the faculty outside the Department of Physical Education. With such information at hand many of such faculty members came to a defense of the physical education requirement and became useful allies of the Department. Of great importance was the backing of students for the required program as indicated in the student opinion survey. It was learned in this situation that faculty group action can only go so far. From then on it becomes a matter of individual leadership and initiative to implement the plans and to follow-through in the deliberations. Such dynamic leadership was given by the Chairman of the Department of Physical Education. It is believed that without such leadership at the strategic time all the work of the faculty would result in failure to accomplish the mission.

Recommendation of the Subcommittee. Although the Executive Committee of the College of Letters and Science had voted to recommend the abolishment of the requirement the Subcommittee recommended, by unanimous vote, that the requirement in physical education be continued with slight modification. The recommendation was then passed by the Committee on Educational Policy by a vote of seven yes, one no, and one member not voting. Finally the report was approved by the Academic Senate (Southern Section).

The modifications to provide for greater flexibility in administration include, (a) for the acceptance, in lieu of one semester of the present required course, of the satisfactory completion of Physical Education 2, 5 or 44 (each of which is a course in health education) and (b) for the further acceptance in lieu of one semester of the present required course, of demonstrated proficiency (equivalent to that normally achieved by a beginner in a one semester course) in one personal-experience sport, such as swimming, tennis or golf.

The report prepared by the subcommittee was forwarded, also, to the Committee on Educational Policy, Northern Section for clearance as a local report. The final report was then submitted to the Chancellor at U.C.L.A. The Chancellor has approved the report but since technical modifications in the Manual of the Academic Senate are necessary, no official action has been taken at this time.

The general conclusions is that under the circumstances of increased enrollments, higher budgets, greater need for facilities and increased pressure for more faculty, a decision was reached which will detract little from the status of the previous requirement. It was the first official action of the Committee on Educational Policy and the Academic Senate on the requirement in physical education and so the basic requirement is now less vulnerable than formerly.

Recommendation. It is believed with increasing enrollments, larger budgets, greater need for faculty and facilities, and the increased emphasis on science that all required instructional areas will be more carefully scrutinized and challenged in the future. With this in mind the profession should be mobilized and prepared to meet the challenge. The following recommendations are submitted:

(1) The C.P.E.A., A.A.H.P.E.R. and other professional organizations interested in physical education should take immediate steps to mobilize and organize all information and to set up a clearing house for dissemination of information to those who request it.

(2) A sound, broadly conceived, interesting and challenging program with expert teaching should be established on each campus. It is believed that this type program affords the surest guarantee of the continuation of the requirement.

(3) Annual opinion polls should be conducted from students and parents concerning their reaction to the required program of physical education. The student survey at U.C.L.A. became a valuable instrument in defending the requirement.

(4) The C.P.E.A. should take initiative in organizing joint-committees with the American Medical Association, the American Public Health Association, the United States Public Health Service and the United States Office of Education to develop statements on endorsement and support on the basic physical education requirement. No statements from these organizations were available to defend the requirement.

(5) It is advised that all national, state and local reports concerning the fitness program be utilized. Important quotes from national leaders carry considerable weight for they come from people outside the profession.

(6) Since there is a lack of objective evidence that the required program of physical education improves physical fitness to a considerable degree it is advised that more than physical fitness should be stressed. Such factors as the reduction of the work week, need for recreational skills, wider opportunities for recreation, the fact that college freshmen, in general, have a low level of neuro-muscular skill, and others, should be stressed as well.

(7) It is believed that sound teaching is paramount if the required program is to gain the respect of the several faculties and to insure its continuance. Continuous evaluation of methods and techniques is advised. Careful selection of faculty who have enthusiasm for this program is necessary.

(8) National surveys of colleges and universities requiring the program of physical education including an analysis of the time factor, credits offered, breadth of program and other factors from the basis for a strong argument concerning the requirement. It is important to point out those colleges who gave up the requirement and who have recently reinstated it following their experience.

(9) Every department of physical education should develop a planned program of public relations. Administration must provide the leadership in this endeavor. It is believed that public relations has been the most neglected area in the administration of physical education. Every effort should be made to interpret the basic program of physical education to the several faculties. Invaluable in such a program is the identity of faculty members with activities through opportunities to participate in recreational sports or through physical developmental program. Everything done in a department adds or detracts from good public relations. Therefore, such factors as the overall quality of the faculty, the

undergraduate and graduate programs, the participation of faculty members on campus-wide committees, research and publication, the attendance at University functions and annual reports of the Department of Physical Education are important in the public relations program.

(10) The development of a sound motion picture as indicated at the University of Illinois appears to be a valuable resource in the defense of a required program.

(11) Research activities in the basic program of physical education should be expanded. Little objective evidence is now available and this is the kind of evidence needed to convince the several faculties of the essential need for the required program.

(12) Dr. Ben Miller, in a tentative draft of The Need for a College Physical Education Requirement poses the following questions which physical education faculty members should be ready to answer:

Is compulsion in physical education desirable?

Is it true that college students have had enough of physical education in elementary, junior and senior high school?

Is required physical education given at the expense of other essential curricular requirements?

Does required physical education intensify the schedule problems of students and cause loss of time and energy which results in poorer "academic" achievement?

Is it true that many adequate substitutes can be made for the requirement in physical education?

Are the costs of physical education prohibitive, especially for facilities?

Is there a lack of conclusive evidence on the contribution of physical education to one's health in later life?

Does physical education have a meager intellectual content?
Is it more than mere exercise?

Do the many minor difficulties associated with a general requirement, when added together, make for a major administrative problem?

When the physical education faculty can answer the above questions with clarity, documentary evidence and in a convincing manner, the defense of the required program of physical education has a good chance of being successful.

CONTROL OBJECTIVES FOR SELECTED SPORTS

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The central concern of all education is to favorably influence human behavior. Perhaps the most prepotent force in determining behavior is that of motivation. People generally do things better when they are motivated. Thus, motivation can be confidently expected to have sharp influence on the efficiency of learning. But what, we may ask, is motivation? Is it a consciousness of some human need or want? Is it the influence of the teacher or the class group? Is it a situation involving challenge and competition? Or is it the effect of more fundamental, unconscious human purposes and desires?

Undeniably, motivation is all of these things - and more. Yet the sine qua non of all motivation remains constant: it must afford the means of satisfying a need or achieving some purpose important to the individual. Here our attention is drawn to two basic concepts - need and purpose. Pupils will learn best when the skills, knowledges, and attitudes developed contribute significantly to fulfillment of one or more basic human needs. Psychologists have delineated these needs as (a) physiological, (b) safety, (c) love, (d) esteem, (e) self-actualization, and (f) knowledge and understanding.

The purposes of pupils - and all people - relate to attainment of conditions which are prerequisites to the satisfaction of basic needs. The boy who learns to throw, catch, kick, and run with a football well enough to satisfy his teacher, his classmates, and himself is meeting one of the preconditions for fulfillment of his conscious need for esteem and belongingness (love). At the same time he is probably satisfying the unconscious - though nonetheless important - physiological and self-actualization needs. We can readily understand then that achievement in physical education activities provides opportunity for fulfilling a variety of prerequisites essential to satisfying the basic human needs.

Where does the concept of objectives fit in this motivational theory of learning and behavior? Is it really necessary to develop objectives for - and with - pupils? Do teachers need to have specific goals in mind before they can teach effectively? The answer, of course, is "yes."

Research in learning clearly demonstrates the high value of clear-cut objectives. A prominent and forceful motive for pupils is the intention to learn. In order to want to learn, boys and girls must have some comprehension of what is to be learned and why. Pupils cannot possibly perceive and understand the "what and why" of their learing experiences unless teachers are fully aware of the outcomes sought. It is at this ritical early point in the teaching-learning cycle that we tend to fall short of peak efficiency. We are inclined to assume too much. We take it for granted that pupils are ''naturally'' interested in sport and dance activities, that they come to us with a sort of ''built-in'' enthusiasm for physical education. Surely this is overstating the case somewhat, but it serves to illustrate what would seem to be a fundamental and underlying factor in some of our most crucial contemporary problems in the field.

We marvel at the material products of our electronic, automotive, and aviation industries; we stand in awe of the precocity of scientific progress in atomic fission and hydrogen fusion; yet we continue to teach as though these things had never happened! As though television, high-powered cars, ''hi-fi,'' and all the other impedimenta of our lofty material standard of living had little or no effect on the value systems and attitudes of students. As though ''sputnik'' and other missile developments were without impact on the opinions of pupils toward physical education and motor fitness.

It is imperative, as never before, that physical educators clearly understand *what* they want pupils to learn - and *why* this learning is important. Without a precise comprehension and delineation of the goals we seek we cannot hope to properly motivate pupils. Thus, we return to the fundamental consideration: *what are the important objectives of the activities of the physical education curriculum?*

This has been the chief concern of the Curriculum Research Committee and Subcommittee on Objectives in recent years. In 1953, under the chairmanship of Dr. Karl W. Bookwalter, the Subcommittee recommended as a future project the determination and elaboration of major outcomes for the activities of the physical education curriculum. During 1954 through 1956 Dr. Wesley Staton served as Chairman and the membership of the Subcommittee was expanded to increase the diversity of experience and specialization of the group. The Subcommittee attempted to sharpen and delimit its functions in 1954. As had been recommended previously, the project was confined to physical education objectives for boys in grades X, XI, and XII. Review of the literature brought to light significantly variable interpretations of objectives and related terminology. It was decided to follow the terminology proposed by Staley in setting forth objectives. Hence, the term ''control objectives'' was used in correspondence and reports. Control objectives include the *condition*, *skills*, *knowledges*, and *attitudes* necessary to effective and worthwhile participation in a given activity. The Subcommittee's efforts in 1955 were directed toward synthesis of an appropriate form to be used for elaborating objectives. A variety of forms were prepared, circularized, and rated by members of the group. Ultimately, the form now in use was agreed upon. It was, and is, the view of the Subcommittee that the structured form assures sufficient specificty without being restrictive or overly complicated for use in the typical teaching situation.

In 1956 the Curriculum Research Committee personnel joined the Subcommittee on Objectives in furtherance of the project. At year's end the group had produced material detailing objectives, or major outcomes, for badminton, basketball, boating, bowling, canoeing, handball, softball, soccer, swimming and diving, tennis, touch football, and track and field. Under the chairmanship of Dr. John E. Nixon the project was continued through 1957 with the resultant development of control objectives for 18 additional activities of the physical education curriculum. These materials will be reproduced in the 1958 Proceedings.

It is the earnest hope of the members of the Subcommittee and the Curriculum Research Committee that each of you will consider possibilities for disseminating the lists of objectives among prospective and in-service physical educators at the high school level. The betterment of our school programs of physical education depends upon many things. Some of these things are within the ken and limits of influence of the teacher. Others await more basic and complex community and cultural changes. But we can say with considerable assurance that the teacher who understands clearly the specific changes he is seeking to bring about in pupils has set the stage for a better physical education program in his school.

CONTROL OBJECTIVES IN ADAPTED PHYSICAL EDUCATION

Carl H. Young
and
Robert Craig

Control Objectives

The nature of the adapted or body mechanics aspects of the physical education program necessitated the establishing of such objectives for each phase of work conducted, according to the findings of the Research Committee of the College Physical Education Association. The various categories considered were: prevention, correction, protection, guidance, and evaluation, and vary somewhat as to format from those of sports activities.

I. Prevention. Instruction in good health habits and opportunities for practicing them are the main elements in the preventive phase of the adapted or body mechanics program.

   A. Condition

      1. Provide sufficient coordination, strength, and vitality to meet emergencies, as well as the requirements of daily living.

      2. Appraise the health status of students and school personnel:

         a. To identify students who are poorly adjusted.

         b. To measure the growth of students.

         c. To identify pupils who have problems relating to nutrition.

         d. To identify students with defects.

         e. To identify students who need further examination.

         f. To identify students who can best be educated apart from the regular school situation.

      3. Prevent existing "minor defects" such as weak feet, postural conditions, etc. from becoming structural deformities.

   4. Improve flexibility, body control and gracefulness.

B. Knowledges

   1. Knowledge of good health habits.

   2. Knowledge of correct posture at all school levels, but particularly at the elementary age.

   3. Knows that a conditioned body is less susceptible to illness.

   4. Understands the relation of proper foot alignment and preventive exercises to avoidance of foot conditions.

   5. Understands the relation of proper body alignment and mechanics and preventive exercises to absence of disease.

C. Skills

   1. Skills in preventive exercises pertaining to the feet.

   2. Skilled in the ability to recognize and apply personally good body mechanics.

   3. Skilled in activities that will produce good body mechanics.

   4. Skills in activities that will develop weak muscles.

D. Attitudes

   1. Readiness to help maintain an environment which is conducive to safety.

   2. Readiness to prevent the occurance of physical defects and disturbances.

   3. Desire to perform regularly proper health habits.

   4. Desire to give attention to all influencing factors such as shoes, clothing, etc.

II. Correction. Individuals having defects or organic disturbances which may be alleviated by physical measures are the responsibility of the corrective aspect of the program.

A. Condition

   1. To determine the cause of each handicapping condition.

2. Restoration of one's body to the best possible condition:
    a. Of the poorly developed.
    b. Of the handicapped.
    c. Of those returning to school following illness or injury.

B. Knowledges

1. Understanding of agonistic and antagonistic muscles.
2. Knows that it is usually easier to correct defect when young and in their early stages.
3. Knowledge as to what is good body alignment and development.
4. Understands that many handicaps may be overcome by proper corrective activities.
5. Knowledge of the need for and value to various corrective exercises or activities.
6. Appreciates that rest, corrective exercises and adaptive activities or sports are helpful in specific cases.

C. Skills

1. Skills in performing prescribed physical activities and adapted sports, including calisthenics.
2. Skill in making compensations for any handicap.
3. Skills in applying mechanical principles effectively in all movements.
4. Skills in activities that will equalize the strength of balance muscle groups.

D. Attitudes

1. Willingness to perform certain definite prescribed physical activities and to persevere in these activities until he develops certain physical achievements regardless of the handicap.
2. Develops personal pride in development and improvement.

3. Readiness to overcome emotional difficulties.

4. Becomes adjusted to own handicap with a desire to overcome rather than submit to it.

III. Protection. Appropriate activity in relation to inhibiting factors becomes the prime concern in this phase of the program.

A. Condition

1. Administration of activity appropriate to the physical condition of the pupils in order to defray further injury or deformity.

2. Bringing about the proper adjustment of school and extra curricular programs and home activities, so that all resources contribute to the best physical and mental development of the individual.

3. Classification for physical education based on the health examination and other pertinent tests and measurements.

B. Knowledges

1. Understands and accepts own physical limitations.

2. Knows safety measures related to accident prevention.

3. Knows how to prevent or combat handicaps.

4. Knowledge of how to use the body at work and play with the minimum expenditure of energy.

C. Skills

1. Skill in protecting one's self from injury.

2. Skilled in activities that develop all-round strength to compensate for any temporary weaknesses.

D. Attitudes

1. Readiness to develop and maintain such interest in joyous living that the individual will maintain the correct attitude.

2. Have the proper appreciation and follow the necessary health habits conducive to his best health.

IV. Guidance. Through individualized instruction and student teacher rational interaction, guidance opportunities are made available.

A. Condition

1. Selection of the activities best suited to one's mental and physical needs and capacity.

2. A substitution wherever possible of sports activities in place of the more artificial calisthenic exercises, thereby capitalizing on interest and an increasing carry over value.

3. Guiding students in the avoidance of situations which would aggravate their condition or subject them to undue risks of injury.

4. Guidance of students needing special consideration with respect to vocational pursuits.

B. Knowledges

1. Knowledge of the specific steps necessary for the correction of a defect.

2. Recognize and understands the proper relationship of the different segments of the body.

C. Skills

1. Skills in activities which will best provide suitable organic development.

2. Skills in activities and sports which will furnish a maximum of leisure time material.

3. Skills of a social nature that can be made the basis for better personal and social living.

D. Attitudes

1. Readiness to develop an intelligent understanding of one's present defect by displaying ability to accept own limitations without withdrawing from the group.
2. Readiness to cooperate with all worth-while health agencies, school departments, physicians and parents for the relief of handicapping conditions.

3. Considerate and helpful to others with handicaps.

4. Appreciates the significance of individual differences.

5. Develops personal pride in overcoming handicaps and weaknesses.

V. Evaluation. This phase would begin with the initial detection or recognition and follow the individual throughout the range of experiences.

A. Condition

1. Initiate a program that will include analysis, diagnosis, conclusions, projection, and data as to results.

2. Evaluation of progress through observations, appropriate measurement and consultation.

3. Follow through with appraisal findings to assure results are derived from the program.

B. Knowledges

1. Knows that improvement or adjustment is being made in overcoming handicap.

2. Understands the physical limitations confronting various individuals.

C. Skills

1. Skill in checking pupils posture and foot conditions.

2. Skill in ability to relax. Absence of tension.

3. Skill in applying the principles of physical fitness in daily living.

4. Skill in the administration and interpretation of the various instruments, devices, photographs, and records.

D. Attitudes

1. Readiness of student to take pride in developing the body to the fullest extent.

2. Appreciates a well functioning body.

3. Is sympathetic and helpful to handicapped people.

4. Readiness to accept handicapped individuals into own group.

5. Fosters insight and appreciation of value from the program, thus improving motivational precepts which may be measured in terms of results or effort.

These control objectives are the result of an eclectic synthesis of a variety of recognized resources completed toward the master of science degree. They were selected and clarified on the basis of criteria established as guide lines for appraisal.

ANGLING

Henry A. Shenk

Control Objectives

I. Condition

Adequate strength and endurance to cast (either fly, bait or spinning) for at least one hour, and in addition, to either hike or handle a boat for a similar period.

The condition involves:

- a. strength and flexibility of wrist and arm for casting.
- b. strength of legs for hiking.
- c. enough endurance in circulatory and respiratory systems to hike three miles or to handle a boat for one hour.

II. Skills

- A. Grip and wrist action in bait casting
  - 1. fingers and thumb action
  - 2. thumbing
  - 3. wrist and arm action
- B. Skill in casting (baid)
  - 1. overhead cast
  - 2. side cast
  - 3. backhand cast
  - 4. bow and arrow cast
- C. Grip and stance (Fly casting)
  - 1. position of fingers
  - 2. position of thumb
  - 3. wrist and arm action
  - 4. stance
- D. Skill in overhead cast (Fly casting)
  - 1. starting position
  - 2. the pick up or back cast
  - 3. pause
  - 4. forward cast
- E. Skill in other variations of fly casting
  - 1. backhand fly cast
  - 2. side cast
  - 3. false cast
- F. Skill in casting - spinning
- G. Skill in retrieving line
  - 1. in bait casting

    2. in fly casting
    3. in spinning
  H. Skill in landing fish
    1. setting hook
    2. playing fish
    3. gaffing or netting fish

III. Knowledge
  A. Knowledge of origin and history of fishing
  B. Knowledge of selection and care of equipment (casting, fly casting or spinning)
  C. Knowledge of feeding habits of common species of fish
  D. Knowledge of the characteristics of various species of fish so that they can be recognized
  E. Knowledge of locale where fish may be expected
  F. Knowledge of the habitat of various species
  G. Knowledge of artificial flies and lures
  H. Knowledge of live or natural baits

IV. Attitudes
  A. Readiness to abide by state and local laws and regulations regarding fishing
  B. Readiness to observe creel limits
  C. Readiness to help others gain skill and enjoyment in fishing
  D. Readiness to use tackle which will give the fish a fighting chance
  E. Readiness to help in fish conservation
  F. Readiness to practice safety precautions at all times

ARCHERY

Ross D. Merrick

Control Objectives

I. Condition

1. Pysiologic capacity to participate in archery as a leisure-time activity.

   The condition involves:

   a. Strength in shoulder girdles, arms, wrists and fingers to to hold bow and draw bow string accurately.
   b. Proper posture, balance, agility, and relaxation of the body for good delivery.
   c. Breath control.
   d. Good vision.
   e. Relaxation of all joints of the arm and hand that draws the bow string.

II. Skills

1. Stance
2. Stringing – (bracing) the bow
   a. Unstringing the bow
3. Bow grips
4. Nocking
5. Arrow grip
6. Drawing
7. Anchor
8. Point of aim
9. Aiming
10. Release and follow through

III. Knowledges

1. Knowledge of origin and development and present day trend
2. Knowledge of terminology
3. Knowledge of selection and care of equipment
4. Knowledge of the rules for regular competition
5. Knowledge of safety procedures
6. Knowledge of how to retrieve arrows

7. Knowledge of special archery contests
8. Knowledge of participating courtesy and etiquette
9. Knowledge of how to keep score
10. Knowledge of some nationally prominent archers
11. Knowledge of how to draw arrows from target, etc.
12. Knowledge of use of bowsights
13. Knowledge of the proper clothes to wear for participation
14. Knowledge of the value of archery

IV. Attitudes

1. Readiness to cooperate with the instructor and classmates
2. Readiness to develop the necessary skills
3. Readiness to practice regularly and willingly
4. Readiness to accept responsibility of the safety of fellow class members
5. Readiness to act in a sportsmanlike manner in victory or defeat
6. Readiness to give optimum effort
7. Readiness to participate in archery as a leisure time activity

BALANCING AND PYRAMID BUILDING[1]

Hartley D. Price

I CONDUCT OBJECTIVES - To be able to execute fundamental balancing stunts and pyramid building with skill and safety, in accordance with good social and hygienic standards.

II CONTROL OBJECTIVES

A. Fixed Controls

1. Balancing
   a. Singles
      (1) Squat - hand balance
      (2) Frog stand
      (3) Head stand
      (4) Elbow stand
      (5) Hand stand
      (6) One hand stand
      (7) One arm (bent) planche
      (8) Free arm planche
      (9) Free head stand

   b. Doubles
      (1) Shoulder - knee balance
      (2) Arm to arm balance
      (3) Belly Swan balance on feet
      (4) Back balance on feet
      (5) Foot to hand balance
      (6) Hand to foot balance
      (7) Foot to foot balance
      (8) Hand to hand balance
      (9) Reverse hand to hand
      (10) Thigh stand (out)
      (11) Thigh stand (in)
      (12) Two high stand
      (13) Two high stand on head

   c. Triples
      (1) Arm to arm and shoulder balance on knees

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[1] Gymnastics and Tumbling, Aviation Training Division, Office of the Chief of Naval Operations, U.S. Navy, Annapolis, Maryland. United States Naval Institute, 1944.

        (2) Triple decker on hands and knees
        (3) Triple decker on back
        (4) Arm to arm and shoulder balance on feet
        (5) "Father time"
        (6) Hand balance on feet and low hand to hand balance
        (7) Variation
        (8) Hold out two high
        (9) "Candle stick"
        (10) Double decker and knee and shoulder balance
        (11) "Tepee"
        (12) "Pretzel"
        (13) Elbow and knee hand balances
        (14) "U" pyramid
        (15) Double hold out
        (16) The three Jacksons
        (17) Variation of the three Jacksons
        (18) Hold out with back lever
        (19) Old Faithful
        (20) Double decker belly swan on hands
        (21) Standing three high

2. Pyramids
    a. All double and triple balancing tricks and any combinations can be used as pyramids

B. Adaptive Controls

1. A knowledge of trick progression from the simple to the more difficult (as listed above) is essential to the safety of the performers.
2. One must know how and where to "spot" or assist fellow performers when learning new balances.
3. One must know the physical principles of stability.
    a. The height of the center of gravity. (Lowering the center of gravity will increase the stability of the body.)
    b. Size of the base of support. (The wider the base, the more stable the object.)
    c. The relation of the line of gravity to the base of support. (The nearer the line of gravity to the center of the base of support, the greater the stability.)
    d. Mass of body. (The greater the mass of the body, the more stable.)
4. It is necessary to know that pyramids may be classified into two main groupings:
    a. Ground pyramids or pyramids without apparatus.
    b. Pyramids on various apparatus, such as parallel bars, side horse, ladders, tables and chairs, etc.

Ground pyramids may be designed on a straight line, on a curved line, or with a round or square base. They may also be designed so that the pyramids might cross each other in the center. It is also possible to plan ground pyramids so that the pyramids are able to move. Such pyramids are called Marching or Walking pyramids.

C. Pattern Controls

1. Co-operation
   The success of the presentation and the safety of the performers depends on co-operation.
2. Team work
   Even though pyramid building is not a traditional team sport, it embodies all the elements of team work. Just as the lineman is responsible for the success of a ball carrier in football, so the top man in balancing depends heavily on his understanders.
3. Confidence
   By accomplishing the various balances with success, the performer develops confidence in himself and in his teammates.
4. Courage
   In any sport involving the element of risk and danger, courage can be developed.
5. Artistic Creativity
   The arranging of the geometric configurations comprising the pyramid, exercises the imagination and originality of the performer.

D. Conditioned Controls

1. The specific objectives in conditioning for balancing and pyramid building are:
   a. upper body strength
   b. leg power
   c. flexibility
   d. balance
   e. agility
2. The following exercises can be used to achieve these objectives:
   a. chins
   b. neck pull-ups
   c. dips
   d. push-ups
   e. extension press-ups
   f. V-position
   g. V-roll
   h. leg lifts-sit-ups
   i. half lever sit-ups
   j. back arched
   k. squat jumps
   l. burpees

BASEBALL

C. F. Damron

The control objectives, or major outcomes, for teaching baseball for senior high boys (Grades X, XI, and XII) are set forth in terms of condition, skills, knowledges, and attitudes.

Control objectives

I. Condition

1. Pysiologic capacity to play at top performance for the full game (7 to 9 innings) and more if necessary, without undue fatigue.

   The condition involves:

   a. Running, much of it at sprint speed, during crucial play situations, i.e., base running, fielding a ball, etc.

   b. Strength enough in shoulder, arm, back, and leg muscles to be able to catch, throw, and bat a ball frequently and accurately during play.

   c. Co-ordination, balance, and agility to enable one to do things at the right time.

      (1) Hit a ball when at bat.
      (2) Throw quickly and accurately.
      (3) Avoid contact with other players; or if contact is made, to maintain correct body position so as to avoid injuries to player himself or opponent.
      (4) Run bases.
      (5) Field a ball.

   d. Strength and flexibility of muscles of the lower extremities so that they can be used in capacity performance, i.e., jumping, changing direction, pivoting, running; and to protect them from possible injury in play situations.

II. Skills

1. Skill in throwing straight with proper speed.

   a. Various types of deliveries - overarm; sidearm; underarm

   - b. Curves
   - c. Ways of gripping ball

2. Skill in catching

   - a. Fly balls
   - b. Line drives
   - c. Fast grounders
   - d. Slow grounders

3. Skill in running

   - a. Backward
   - b. Right or left
   - c. Forward

4. Skill in batting

   - a. Selecting a bat
   - b. Stance
   - c. Stride and timing
   - d. Swing
   - e. Bunting

5. Skill in base running

   - a. Start and run from home plate
   - b. Lead off base
   - c. Sliding to bases

6. Skill in offensive team play

   - a. Hit and run
   - b. Base stealing
   - c. Sacrifice play
   - d. Squeeze play
   - e. Signals

7. Skill in defensive team play

   - a. Breaking up a double steal
   - b. Running down a base runner
   - c. The pitch out
   - d. Relaying ball from outfield
   - e. Signals

III. Knowledges

1. Knowledge of rules
2. Knowledge of terminology
3. Knowledge of offensive strategy
4. Knowledge of how to keep score
5. Knowledge of prominent baseball figures
6. Knowledge of equipment - its care and use
7. Knowledge of basic safety procedures that should be followed
8. Knowledge of defensive strategy
9. Knowledge of one's physical condition and ability
10. Knowledge of base coaching
11. Knowledge of play situations in all position

IV. Attitudes

1. Readiness to cooperate with teammates and coach or teacher
2. Readiness to accept decisions of officials
3. Readiness to play fairly at all times
4. Readiness to act in a sportsmanlike manner in victory or defeat
5. Readiness to train and practice regularly and willingly
6. Readiness to show respect and courtesy toward teammates, opponents, and officials
7. Readiness to practice self-control in trying situations
8. Readiness to ''hustle'' at all times and willingly

DECK TENNIS

Wayne H. Crawford

The control objectives, or major outcomes, for teaching deck tennis for senior high school boys (Grades X, XI, and XII) are set forth in terms of condition, skills, knowledges and attitudes.

Control Objectives:

I. Condition

1. Physiological capacity to play at least three continuous games or sets (depending upon the system of scoring followed) without undue fatigue or lowered level of skill.

   The condition involves:

   a. Running, with emphasis on constant and sudden starts, stops and changes of direction.

   b. Strength and flexibility of knees, ankles and arches of feet to protect them from the strains of sudden starts, stops and changes of direction.

   c. Strength and flexibility of hands, wrists, elbows and shoulders to permit continued proficiency in executing skills of catching and throwing the deck tennis ring.

   d. Acquired toughness of the skin on feet, thereby permitting long and strenuous play without danger of blisters or other skin irritations.

II. Skills

1. Skill in acquiring agility and good body balance

   a. "Ready position" with feet apart, weight on balls of feet, knees slightly bent, body bent slightly forward at the waist - ready to move quickly in any direction.

   b. Ability to quickly move sideways in a sliding motion without crossing feet, sprint forward, run backwards while facing net, turn and run toward the baseline - all movements performed easily and with a minimum of steps.

   c. Ability to recover quickly after each catch and throw - to return to the center of the court in anticipation of the next move by opponent.

2. Skill in serving

   a. Short serve
   b. Long serve
   c. High serve
   d. Low serve
   e. "Wobble" serve
   f. Serve to any spot in service court where opponent shows apparent weakness.

3. Skill in catching

   a. Left hand
   b. Right hand
   c. Catching high throws
   d. Catching low throws
   e. Catching throws on either side while running
   f. Catching throws while running backwards
   g. Catching throws while running toward baseline with back to net.

4. Skill in throwing

   a. Throwing with either hand
   b. Sidearm throws
   c. Cross-body throws
   d. Drop shots
   e. High deep throws
   f. "Wobble" throws
   g. Flat throws

5. Skill in court strategy

   a. Ability to anticipate opponent's throw and be ready to move quickly to correct spot for the catch.

   b. Ability to conceal offensive tactics until last split second, thereby preventing opponent anticipating where ring will be thrown.

   c. Skill in varying tactics according to opponent's position on the court and apparent weaknesses.

III. Knowledges

1. Knowledge of recommended procedures in the selection and care of equipment, including wearing apparel.
2. Knowledge of court and net dimensions and details of laying out a deck tennis court.
3. Knowledge of the rules of deck tennis.
4. Knowledge of the terminology used in deck tennis.
5. Knowledge of common playing courtesies.
6. Knowledge of the skills involved in correctly executing the various deck tennis throws and catches.
7. Knowledge of the basic strategy of both singles and doubles play.
8. Knowledge of the procedures for organizing and conducting various types of singles and doubles tournaments.

IV. Attitudes

1. Readiness to cooperate with the teacher and fellow players.
2. Readiness to play fairly at all times.
3. Readiness to accept willingly decisions of opponents on questionable calls.
4. Readiness to place sportsmanship above winning.
5. Readiness to always play at top effort, regardless of the apparent superiority or inferiority of an opponent.
6. Readiness to spend time in practice to overcome weaknesses in skill and court strategy.

PLAYING DECK TENNIS

J. Wynn Fredericks

Control Objectives

I. Condition

1. Physiologic capacity to play a game which is quite strenuous with active, skilled players but very mild when used merely as a social pastime.

   This condition involves:

   a. Ability to run during the game with particular emphases on quick starts and stops.

   b. Leg strength for fast starts, quick stops, running, jumping for high shots and bending for low shots.

   c. Strength of the abdominal wall to pivot for backhand shots, and to bend and reach for low or distant shots.

   d. Hand and finger strength to catch hard returns.

   e. Wrist strength and flexibility to make the necessary catches, serves and returns.

II. Skills

1. Skills in serving

   a. Serving low flat serves close to the net.
   b. Serving high floating serves to deep back court.
   c. Using the backhand swing in serving.

2. Skills in catching

   a. "Giving" with the hand and wrist.
   b. Gripping ring between thumb and fingers.
   c. Catching with either hand.
   d. Having palm up when catching.

3. Skills in returning

   a. Using the backhand swing when returning ring.
   b. Using either hand equally well in returning.
   c. Using only the underhand return.

- d. Having the palm up on throws.
- e. Flipping the wrist to make ring turn over in the air on some returns.
- f. Throwing while still in the air when jumping for high shots at the net.
- g. Changing speed of returns.
- h. Developing short drop shots.

III. Knowledge of:

1. The rules for singles and doubles.
2. The strategy of the game which has great similarity to tennis and badminton.
3. Situations where it will be possible to play the game.
4. Areas where it will be possible to lay out a court.

IV. Attitudes of; Readiness to:

1. Call all penalties on self or partner.
2. Share the court with partner without ''poaching.''
3. Play fair at all times.
4. Act in a sportsmanship manner regardless of the situation.
5. Give top effort at all times.
6. Participate in the game as a social situation yet concentrate fully while actually making the shots.

PLAYING FOOTBALL

Donald J. Salls

The control objectives, or major outcomes, for teaching football for senior high school boys (grades X, XI, and XII) are set forth in terms of condition, skills, knowledge, and attitudes.

Control Objectives:

I. Condition

1. Physical fitness to perform at a high level for forty-eight (48) minutes without excessive fatigue impairment.

   The Condition Involves:

   a. Running with agility and speed, when necessary, with satisfactory pulse rate recovery.

   b. Fine muscle strength and coordination sufficient to punt, pass, receive and carry the ball.

   c. Big muscle strength and body control for blocking and tackling.

   d. Regular exercises for the ankles, knees, shoulders and neck for tonus and injury prevention purposes.

II. Skills

1. Offensive skills

   a. Running with the ball
      (1) Ball in safe arm position
      (2) Warding off defensive player (stiff arm)
      (3) Changing direction (side step, cross over, dips, fake pass)
      (4) Quick starts and ability to follow offensive blockers

   b. Passing the ball
      (1) Passing grip
      (2) Passing position (feet, weight, follow through, both standing and running)
      (3) Passer's target (stationary, moving)

c. Receiving a pass
  (1) Catching with fingers and hand while giving with speed of ball
  (2) Follow ball with eyes into hands (head dip)
  (3) Catching spot passes, hook passes, stop and go passes and receiving over left shoulder, and right shoulder
  (4) Foot and body fakes prior to and after catching ball

d. Field goal, extra point, kick off
  (1) Measured steps for kicking
  (2) Location of toe striking spot and angle of ball
  (3) Eyes down, before and after kick

e. Punting the ball
  (1) Position of feet, steps, lock knee-ankle, follow thru
  (2) Release of ball
  (3) Punting for height, distance, and placement
  (4) Quick kick

f. Centering the ball
  (1) Two-hand center snap and one-hand snap to "T" quarterback
  (2) Position of feet, weight distribution, hand position, wrist movement, and head position
  (3) Center foot movement and charge as ball is snapped

g. The "T" Quarterback
  (1) Position of hands, thumbs, elbows, knees and feet as he takes "T" snap
  (2) Foot movement when ball is received and movements to hand-off ball
  (3) Ability to fake, give ball off, pass and direct offense

h. Blocking for ball carrier
  (1) Shoulder block, reverse block, hip block, two-on-one block
  (2) Passive blocking, tie up blocking, long block

i. Receiving the punted ball
  (1) see d. (1) and (2) above
  (2) Fakes, reverses, and formations to return ball

2. Defensive skills

a. Tackling and defensive know-how
  (1) Tackling fundamentals, spread, balance, leg drive, arm lock
  (2) Head on tackle, side tackle, rear tackle

    (3) Pass defense including a rushing line, delaying receivers, covering zones, and tackling receiver

  b. Line play on defense
    (1) Straight charge, stunting, three man combinations
    (2) Fake and charge
    (3) Pursuit angles
    (4) Charging combinations to block punt

III. Knowledges

1. Knowledge of rules
2. Knowledge of terminology
3. Knowledge of offensive strategy of the major football formations
4. Knowledge of defensive strategy of major defenses
5. Knowledge of playing various positions

IV. Attitudes

1. Cooperative with officials, players, captain, and quarterback
2. Ability to engage in skillful play rather than rough injurious competitition
3. Readiness to give a top effort, physically as well as socially

PLAYING GOLF

J. Wynn Fredericks

Control Objectives:

I. Condition

1. Physiologic capacity to play an eighteen hole round without undue fatigue and to play thirty six holes when tournament rules so require.

   The condition involves:

   a. Ability to walk at least 4-1/2 miles over rough terrain which is sometimes quite hilly.

   b. Leg strength both for necessary walking and to maintain balance when complete weight shift occurs from one leg to the other.

   c. Arm strength to swing the club at great speed for a complete round.

   d. Hand and finger strength to control the swinging club head.

   e. Strength and toughness of the skin where the hands touch the grip of the club - no blisters or tenderness to affect the swing.

   f. Strength and endurance of abdominal wall to continue the full pivot and wind-up for 18 holes.

II. Skills

1. Skills in using the wood clubs

   a. Driving from the tee.
   b. Playing a long fairway shot with the #2 wood.
   c. Playing a high fairway shot with #3 and #4 woods.
   d. Playing intentional hooks and slices with wood clubs.
   e. Playing high or low shots according to conditions of wind and terrain.

2. Skills in using fairway irons

    a. Playing shots with normal loft of club.
    b. Playing high shots which stop quickly.
    c. Playing low shots which run.
    d. Playing low shots with "bite."
    e. Playing shots with slight hook or fade.
    f. Playing "cut" shots with short irons.
    g. Playing pitch and run shots.
    h. Playing run-up shots.

3. Skills in getting out of trouble

    a. Playing explosion shots from sand traps.
    b. Playing "cut" shots from sand traps.
    c. Chipping ball cleanly from sand traps.
    d. Playing shots from bare or hard ground.
    e. Playing shots from deep rough.

4. Skills in putting ball in hole

    a. Playing "lag" putts on fast greens.
    b. Playing firm putts on slow greens.
    c. Playing putts which break from left to right.
    d. Playing putts which break from right to left.

III. Knowledges

1. Knowledge of the history and traditions of golf.
2. Knowledge of prominent personnel both present and historical.
3. Knowledge of golf terminology.
4. Knowledge of the rules including the differences in rules for stroke play and match play.
5. Knowledge of strategy for match play.
6. Knowledge of strategy for stroke play.
7. Knowledge of factors affecting play — wind, rain, cold, heat, conditions of turf on fairways and greens (hard or soft, smooth or bumpy).
8. Knowledge of factors affecting speed of greens — type of grass, grain of green, direction of mower cut, slopes, optical illusions.
9. Knowledge of scoring.
10. Knowledge of how to figure handicaps and make use of them.
11. Knowledge of equipment — its purposes and limitations.
12. Knowledge of care of equipment.

IV. Attitudes

1. Readiness to cooperate with the teacher and fellow players.

2. Readiness to call all penalties on self whether observed by other or not.
3. Readiness to play fair at all times.
4. Readiness to act in a sportsmanlike manner regardless of the situation.
5. Readiness to accept bad breaks and realize that they occur often in golf, and need no alibi.
6. Readiness to give top effort at all times.
7. Readiness to participate in the game as a social situation, yet concentrate fully while actually making the shots.
8. Readiness to observe meticulously the etiquette peculiar to golf.
9. Readiness to practice rather than play when skill and condition demand practice.
10. Readiness to replace divots, rake sand traps, and repair ball marks on greens.
11. Readiness to show respect and courtesy towards players, officials and spectators.

GYMNASTICS

H. D. Price

DOUBLE BALANCING

I. Conduct Objectives

The purpose of this unit is to perform double balancing reasonably well in accordance to social and hygienic standards.

II. Control Objectives

A. Fixed skills
  1. Grips
    a. Hand-lock grip
    b. Wrist-lock grip
    c. Handshake grip
    d. Thumb-lock grip
    e. Foot-to-hand grip
    f. Arm-to-arm grip
    g. Body grips
  2. Hand, knee, shoulder balance
    a. Head up, back arched, elbows locked
    b. All weight on bottom man's arms, shoulder over shoulder
    c. Bottom man flat on back
    d. Press slowly to inverted balance for top man
  3. Arm to arm balance
    a. Bottom man grasps inside of arms on biceps of top man
    b. Top man grasps outside of arms on triceps
    c. Kick up or press to full height
  4. Belly swan balance, grasping hands
    a. Feet in groin pointing outward, legs straight
    b. Back arched and head up
  5. Belly swan balance, without hands
    a. Seek points of balance in groin, hands and arms out straight to side
    b. Look straight ahead
    c. Bottom man does all balancing with feet
  6. Foot to hand balance
    a. Top man grasps bottom man's feet until balance is gained
    b. Top man stands rigid, bottom man does all balancing

   - c. Top man looks straight ahead, bottom man grasps arch of top man's feet to do supporting
7. Hold out
   - a. Top mounter stands on knees facing out
   - b. Jump to knees of holder, fan out, top man arch back
   - c. Bottom man leans backward to counteract forward pull
8. Hold out (one hand facing)
   - a. Grasp left hand on bottom man's neck, step up to knees, facing in, fan out easily
   - b. Top man hold body straight
   - c. Both men place left arms over head for balance
9. Back balance on feet
   - a. Top man lie on bottom man's feet, man puts feet in small of back of top man
   - b. Top man arches and puts head back
   - c. Arms out to side
   - d. Bottom man does balancing
10. Jump to feet to hand balance
    - a. Bottom man holds hands steady, do not reach for feet
    - b. Top man places feet in hands
    - c. Top man jumps straight up, do not lean forward
    - d. Bottom man does all of the balancing
11. Foot to foot balance
    - a. Mount from third man's shoulders
    - b. Keep feet 18 inches apart
    - c. Top man keeps body straight, legs straight
    - d. Keep soles flush
12. Low hand-to-hand balance
    - a. Bottom man keeps arms straight and locked
    - b. Top man grasps with knuckles on outside
    - c. Top man kicks up or presses up
    - d. Bottom man controls balancing after top man is in position
13. Belly throw to low hand-to-hand
    - a. Bottom man puts feet in groin of man on top
    - b. Bottom man keeps arms straight and perpendicular
    - c. Top man kicks or whips legs a little when bottom gives kick
    - d. Bottom man bends legs slightly for throw
    - e. Throw up and slightly backward
    - f. Bottom man does balancing when top man is in position

B. Adaptive (Knowledge)
   1. Knowledge of spotting, history, terms, body mechanics, body balancing points, safety, assistance, danger in certain stunts, variations of stunts, skills, progression of stunts, strength and agility, how to fall without injury, relaxation

- C. Pattern Control
    1. Develop attitude of good sportsmanship, self control, safety, assistance, cooperation, observing rules and regulations, and rights of others
    2. Develop trust and understanding of others
    3. Increase confidence on part of individual
    4. Develop leadership and helpfulness
- D. Conditioned controls
    1. To develop sense of balance
    2. Increase strength
    3. Increase endurance
    4. Develop flexibility without strain on part of body
    5. Develop stamina without undue fatigue

III. Learning activities

1. Practice spotting
2. Observe new tricks
3. Practice new tricks
4. Observe new demonstrations
5. Watch movies
6. Read books
7. Help others
8. Analyze skills
9. Ask questions
10. Study charts and diagrams
11. Know mechanical factors of tricks
12. Listen to expert advice

IV. Materials of Learning

1. Mats
2. Whistle
3. Charts and diagrams
4. Movies
5. Books
6. Blackboard, chalk, and eraser

FLYING RINGS

Joseph G. Taylor

I. Conduct Objectives: Performing on the flying rings reasonably well, and in good form, according to good social and hygienic standards

II. Control Objectives:
  A. Fixed controls
    1. Skill in chinning
      a. At front of swing
      b. At back of swing
    2. Skill in the dismount
      a. Dismount at rear end of swing
      b. Release rings when body is in a position vertical to the floor
    3. Skill in the back dislocate
      a. Wait till end of swing
      b. Kick legs up at a 45 degree angle. Arch the back. Lift the head. Extend arms sideward and keep them straight
    4. Skill in the front dislocate
      a. Go for trick just before the end of the forward swing. Don't kick hard
      b. Shoot legs out straight. Arms slightly bent. Float through the trick
    5. Skill in the inlocate
      a. Use a late beat. Kick high and roll forward. Arms sideward
    6. Skill in the kip
      a. Kick up and outward at dead point of swing. Legs straight
      b. Pull with straight arms. Rings in back of buttocks until control is mastered
    7. Skill in the front uprise
      a. Get an early beat, raise legs and pull with arms
      b. Lean forward. Bring rings down to hips
      c. Shoulders forward. Rings in back to support position
  B. Adaptive controls
    1. A knowledge of the body mechanics of the swinging chin, dismount, back dislocate, front dislocate, inlocate, kip, front uprise, spotting, safety factors involved in flying, rules and regulations, history of gymnastics, scoring, terms used, and the care of the flying rings

- C. Pattern controls
    1. Good attitudes toward sportsmanship, constructive criticism, teammates and opponents
    2. Appreciation of facilities and equipment
    3. Appreciation of good leadership
    4. Appreciation of rules and regulations
    5. Appreciation of your responsibilities to the team and the coach
    6. Ability to win humbly and lose gracefully
- D. Condition controls

  To develop and increase the strength, endurance, balance, and flexibility of the individual so that he may perform without undue strain or fatigue.

III. Learning Activities:

1. Practice the swinging chin, dismount, back dislocate, front dislocate, inlocate, kip, front uprise and spotting
2. Analyze each movement
3. Watch films
4. Watch demonstrations
5. Attend clinics
6. Correct other students
7. Accept criticism and suggestions
8. Observe classmates
9. Discuss movements with classmates
10. Read articles and books
11. Study rules and regulations

IV. Materials of Learning:

1. Two sets of rings
2. Four six by forty mats
3. Movies
4. Demonstrations
5. Books, articles and posters
6. Clinics

GYMNASTICS (HORIZONTAL BAR)

I. Conduct Objectives: To participate in gymnastics in accordance with hygienic standards

II. Control Objectives:
  A. Fixed
    1. Skill in spotting and analyzing
    2. Skill in learning to fall
    3. Skill in learning trick and form as one
    4. Skill in ability to put tricks together to make exercises
  B. Adaptive Controls
    1. Knowledge of fundamental and advanced moves
    2. Knowledge of spotting (hand and belt)
    3. Knowledge of what constitutes a good exercise
    4. Knowledge of how to score exercise
  C. Pattern Controls
    1. Disposition toward helping others
    2. Disposition to spot
    3. Appreciation of gymnastics
    4. Disposition toward training
  D. Condition Controls
    1. Have enough strength and endurance to perform tricks and exercises reasonably well. If going on with advanced high bar should be able to do at least twenty pull-ups with either hand grasp.

III. Learning Objectives
  1. Observe
  2. Visualize trick or exercise before trying to do it
  3. Have good spot
  4. Try trick or exercise
  5. Analyze mistake if any and try again
  6. Do trick or exercise until no thought is required in performance
  7. Work on form, continuity and difficulty
  8. Ask for criticism

IV. Materials of Learning
  1. Apparatus mats
  2. Low and high horizontal bars
  3. Spotting belts (hand and suspended)
  4. Area with good clearance
  5. Books and films on gymnastics
  6. Chalk (Magnesium carbonate)

7. Emery cloth
8. Sufficient lighting

Suggested Teaching Techniques

In order to work good high bar or for that matter any piece of apparatus you must first have a real desire because of all the time it takes to get anywhere. Close after desire comes strength. You must be able to handle your own body weight. On high bar this means pull-ups or rope climbing. All tricks are done with thumbs grasping around the bar in opposition with rest of fingers. The grasp on bar should be either pronated or supernated depending on trick. A good rule to follow is to grasp the bar so that the heels of your hands point toward the direction of rotation of the trick to be done. There are exceptions to this rule such as a back-up-rise, front-hip-circle, etc. Always bend legs on landings. Learn how to spot and be very serious and conscientious about it (the head must be protected at all costs). Keep bar sanded and hands chalked. Learn trick and form at the same time. Learn how to turn off and cut off from giant swings. A good progression on high bar is:

1. One leg shoot threw
2. Two leg shoot threw
3. Back and front leg circles
4. Dev. swing
5. Kip (forward and reverse)
6. Back hip circle
7. Front hip circle
8. Back up rise
9. Free hip circles in series
10. Half giant
11. Full forward giant
12. Full back giant
13. Cross turn uprise
14. Cross turn to forward giant
15. Turn front to back giant

PARALLEL BARS

Joseph G. Taylor

I. Conduct Objectives: Performing on the parallel bars reasonably well, and in good form, according to good social and hygienic standards.

II. Control Objectives:
  - A. Fixed controls
    - 1. Skill in performing dips
      - a. Straight arm cross support
      - b. Head up - back arched
      - c. Lower to bent arm support
      - d. Push to straight arm support
    - 2. Skill in swinging
      - a. Straight arm cross support
      - b. Swinging backward
        - (1) Lean slightly forward
        - (2) Keep arms straight
        - (3) Back arched
      - c. Swinging forward
        - (1) Lean slightly backward
        - (2) Keep arms straight
        - (3) Extend hips forward
    - 3. Skill in performing the single leg cut mount
      - a. Jump with arms straight
      - b. Bring one leg horizontally over bar
      - c. Regrasp and lean slightly forward
    - 4. Skill in performing the double leg cut mount
      - a. Jump with arms straight
      - b. Bring both legs horizontally over one bar
      - c. Regrasp and lean slightly forward
    - 5. Skill in performing the back uprise
      - a. Upper arm support
      - b. Obtain maximum swing backward
      - c. As legs move to rear and pass bars pull forward and upward with shoulders
    - 6. Skill in performing the front uprise
      - a. Upper arm support
      - b. Obtain maximum swing forward
      - c. As legs reach bar level pull forward and upward with shoulders

7. Skill in performing the upper arm kip
    a. Upper arm support
    b. Swing legs forward and upward over head
    c. Kick legs upward and forward
    d. Push upward and pull forward with shoulders
8. Skill in performing the glide kip
    a. From cross stand at end of bars
    b. Move feet forward keeping close to floor
    c. Extend hips
    d. Bring legs back and upward over head
    e. Kick legs upward and forward
    f. Pull upward and slightly forward with shoulders
9. Skill in performing the shoulder stand
    a. From a cross straddle seat
    b. Place shoulders in front of hands
    c. Raise hips over head
    d. Raise legs - arch back
10. Skill in performing the hand stand
    a. From straight arm cross support
    b. Swing body backward and upward
    c. Swing from shoulders only
    d. Keep arms straight, back arched
    e. Shoulders slightly forward of hands
    f. Keep feet over head
11. Skill in spotting on the parallel bars

B. Adaptive controls
    1. A knowledge of the body mechanics of the dip, swing, single leg, double leg, back upper arm, front upper arm, upper arm, glide kip, shoulder, handstand, mechanics of spotting, safety factors involved in parallel bar work, psychological factors influencing parallel bar work, rules and regulations, history of gymnastics, scoring, terms used, and the care of the parallel bars

C. Pattern controls
    1. Good attitudes toward sportsmanship
    2. Good attitudes toward constructive criticism
    3. Good attitudes toward teammates
    4. Good attitudes toward opponents
    5. Appreciation of facilities and equipment
    6. Appreciation of good leadership
    7. Appreciation of rules and regulations
    8. Appreciation of your responsibilities to the team and the coach
    9. Ability to win humbly and lose gracefully

D. Condition controls

To develop and increase the strength, endurance, balance, and flexibility of the individual so that he may perform without undue strain or fatigue.

III. Learning Activities:

1. Practice swinging
2. Practice the single leg cut
3. Practice the double leg cut
4. Practice the back uprise
5. Practice the front uprise
6. Practice the upper arm kip
7. Practice the glide kip
8. Practice the shoulder stand
9. Practice the hand stand
10. Practice spotting
11. Analyze each movement
12. Watch films
13. Watch demonstrations
14. Attend clinics
15. Correct other students
16. Accept criticism and suggestions
17. Observe classmates
18. Discuss movements with classmates
19. Read articles and books
20. Study rules and regulations

IV. Materials of Learning:

1. Four sets of parallel bars
    a. Two sets regulation height
    b. Two sets of low bars
2. Eight four by ten mats
3. Six four by four mats
4. Books and articles
5. Movies
6. Demonstrations

TRAMPOLINE

I. Conduct objectives

The purpose is to perform on the trampoline in accordance with social and hygienic standards.

II. Control objectives

A. Fixed skills

1. Mount
2. Dismount
    a. Grasping frame
    b. Landing
3. Bounce
    a. starting jump
    b. body erect
    c. feet position on mat
    d. lifting arm action
    e. keeping feet together
    f. pointing feet
    g. flex hips and legs
    h. extend hips and legs
    i. fix eyes on spot on bed at all times
    j. swinging arms upward on each recoil of bed
    k. killing bounce by relaxing body on contacting bed
4. Hands and knees bounce
    a. hands and knees on bed
    b. take off from stand
    c. reach upward when recoil of bed throws body upward to regain standing position
    d. bounce from feet to hands and knees, back to feet
5. Knee bounce
    a. start with low feet bounces
    b. hold body erect
    c. land on bed with knees flexed
    d. keep toes pointed
    e. lift with arms to regain standing position
6. Seat bounce
    a. execute from feet bounce
    b. on drop hold trunk and head erect
    c. spot down and forward on bed
    d. hold arms above head
    e. swing legs forward, knees straight but flexed hips
    f. lower the arms forward and down to a position behind the hips, palms down

- g. land on hands, buttocks, thighs, and heels simultaneously. Spot with head erect
- h. push bed down with hands and swing arms up into the life and extend the hips and press the legs down on clearing the bed. Land on feet, body erect

7. Front-drop
    - a. start in standing, feet bounce position
    - b. flex hips and knees, and lift hips
    - c. lower arms forward and down as well as the head and shoulders as if to land on all-fours
    - d. continue rotation forward until back is parallel to bed
    - e. raise head, spot down, prepare to land
    - f. extend legs out straight, and raise head
    - g. land flat on hands, chest, abdomen, hips, thigh, and the feet simultaneously; not on elbows
    - h. rebound by pushing forcefully on bed with hands
    - i. return to feet bounce position
8. Back-drop
    - a. use low feet bounce
    - b. start backward rotation of body
    - c. throw arms backward and up; throw head back
    - d. draw knees up to chest
    - e. tuck chin to chest
    - f. land on flat of back
    - g. extend knees forcefully upward
    - h. press hips forward putting body in arch
    - i. keep feet toward bed
    - j. come to feet bounce position
9. Half-twist
    - a. commence with low feet bounce
    - b. swing the left arm down and across close to the chest and push it upward past the opposite shoulder slightly beyond head level
    - c. as the left arm passes in front of the right shoulder, simultaneously the head does an about face, eyes focused
    - d. the right arm is lowered with elbow bent pushing backward to square shoulders
    - e. when landing on bed, the body faces the opposite direction
10. Tuck and bounce
    - a. commence with feet bounce position
    - b. lift arms to full height of bounce
    - c. at full height draw legs up to chest
    - d. hook hands around shins
    - e. drop legs and land in feet bounce position
11. Front flip knee to seat
    - a. commence in feet bounce position

        b. land in knee bounce position
        c. lift with arms and tuck with head to chest
        d. lift hips with tucking motion of legs
        e. tuck head to look through crouch
        f. untuck legs
        g. land in sitting position of bed
    12. Front flip
        a. commence in feet bounce position
        b. lift to full height of bounce
        c. tuck, grasping ankles with hands
        d. make complete turn with body
        e. spot bed on turn to have proper opening
        f. untuck and straighten legs
        g. land on bed in erect position
    13. Back flip
        a. commence with feet bounce
        b. at full height of bounce throw head back
        c. arch body and bring knees to uplifted hands
        d. bring knees to chest
        e. complete backward circle
        f. keep head back and spot bed
        g. straighten legs out of flip and bring to bed
        h. land in erect position
    14. Front drop to seat drop
        a. combination of numbers seven and six
    15. The following are combinations of preceding skills
        a. one-half twist to back drop
        b. one-half twist to front drop
        c. seat drop to front drop
        d. back drop to front drop
        e. seat drop to one-half twist to seat drop
        f. seat drop to full twist to seat drop
        g. front three-fourths somersault to seat drop
        h. seat drop to back somersault to feet
        i. back somersault; tuck, pike, layout
        j. front somersault; tuck, pike
        k. back somersault to a seat drop
        l. back somersault from knees to seat (tuck)
        m. front turnover hands and knees to feet
        n. feet with one-half twist to feet (barany)
        o. back-over to knee drop to feet
B. Adaptive (Knowledge)
    1. Knowledge of scoring
    2. Knowledge of spotting
    3. Knowledge of history
    4. Knowledge of terms
    5. Knowledge of body mechanics
    6. Knowledge of safety

7. Knowledge of assistance
8. Knowledge of fundamental techniques and skills
9. Knowledge of care of trampoline
10. Knowledge of rules and regulations (NCAA, NAAU) (FIA)
11. Knowledge of conducting meets
12. Knowledge of danger in certain stunts
13. Knowledge of quick and accurate decisions and actions

C. Pattern Control
   1. Develop attitude of good sportsmanship, self control, safety, cooperation, assistance, observing rules and regulations, rights of others, appreciation of trampoline
   2. Develop resourcefulness
   3. Develop initiative and originality
   4. Develop perseverance
   5. Develop leadership and helpfulness
   6. Increase confidence on part of student

HORSESHOE PITCHING

Richard J. Donnelley

The control objectives, or major outcomes, for teaching horseshoe pitching for senior high school boys (Grades X, XI, and XII) are set forth in terms of condition, skills, knowledges, and attitudes.

Control Objectives:

I. Condition

1. Physiologic capacity to participate in horseshoe pitching in accordance with one's leisure time needs and interests.

   The condition involves the development of:

   a. Strength in shoulder girdle, arm, wrist, and hand to pitch the shoe frequently and accurately during the match.
   b. Strength of back and legs sufficient to maintain pitching skill at its peak for the duration of the match.
   c. Fexibility of wrist and hand to control the shoe in its delivery.

II. Skills

1. Skill in gripping the shoe
   a. Gun-handle grip
   b. Other grips
2. Skill in stance
   a. Position of feet
   b. Step
3. Skill in delivering the shoe
   a. The swing
   b. The release
   c. Follow through
4. Skill in opening the shoe
   a. The turns

III. Knowledge

1. History of horseshoe pitching
2. Rules
3. Terminology

4. Courtesy and etiquette
5. Care of horseshoe court and equipment
6. Recreational opportunities available for horseshoe pitching
7. Health precautions
8. Training hints

IV. Attitudes

1. An appreciation of the function that horseshoe pitching may play in the recreational life of Americans.
2. An appreciation of the importance that practice and training have for improved performance.
3. A desire to put forth one's best effort at all times.
4. The habit of practicing the code of sportsmanship — namely playing fairly and being a good loser and a graceful winner.
5. The habit of playing in a give-and-take manner, especially when playing without officials.
6. An appreciation of horseshoe pitching for enjoyment as a spectator.

PLAYING ICE HOCKEY

Emory W. Seymore

The control objectives, or major outcomes, for teaching ice hockey for senior high school boys (Grades X, XI, and XII) are set forth in terms of condition, skills, knowledges, and attitudes.

Control Objectives:

I. Condition

1. Physiologic capacity to play at top performance throughout a match of three periods and to play in overtime, if necessary, without undue fatigue or reduced effectiveness.

   The condition involves:

   a. Skating in short bursts of speed on both offense and defense.
   b. Endurance for continuous skating over an extended period.
   c. Strength in wrists, arms, and shoulders to facilitate a powerful and rapid shot at the goal.
   d. Balance and agility to provide for quick starts and stops.
   e. Keen reactions to initiate action in accordance with developments as they occur in the match.

II. Skills

1. Skill in skating
   a. Straightaway skating or straightaway stride
   b. Rounding corners — turning stride
   c. Skating backwards
2. Skill in passing
   a. Fast pass
   b. Push pass
   c. Flip pass
   d. Drop pass
   e. Back pass
3. Skill in shooting
   a. Hard or power shot
   b. Backhand shot
   c. Slap shot
   d. Close in shot
   e. Flip shot
   f. Forehand shot
4. Skill in stickhandling
   a. Lateral dribble
   b. Forward-backward dribble
   c. Inside dribble

5. Skill in body checking
   - a. Shoulder checking
   - b. Hip checking
6. Skill in feinting or shifting
   - a. Dodging
   - b. Twisting
   - c. Pivoting
   - d. Turning
   - e. Head feints
   - f. Shoulder feints
   - g. Stick and elbow feinting
7. Skill in team offensive play
   - a. When outnumbered
   - b. When outnumbering opponents
   - c. When at even strength
8. Skill in team defensive play
   - a. When outnumbered
   - b. When outnumbering opponents
   - c. When at even strength

III. Knowledges

1. Knowledge of the rules, terminology, offensive strategy, defensive strategy, playing various positions, how to keep score, equipment--its use and care, and safety precautions.

IV. Attitudes

1. Readiness to cooperate with the teacher and fellow players
2. Readiness to accept willingly the decisions of officials
3. Readiness to play fairly at all times
4. Readiness to act in a sportsmanlike manner in victory or defeat
5. Readiness to give a top effort regardless of the apparent superiority or inferiority of an opponent
6. Readiness to train and practice regularly and willingly
7. Readiness to show respect and courtesy toward players and officials as a spectator

SPEEDBALL

C. Frazier Damron

The control objectives, or major outcomes, for teaching speedball for senior high boys (Grades X, XI, and XII) are set forth in terms of condition, skills, knowledges, and attitudes.

Control Objectives:

I. Condition

A. Physiologic capacity to play at top performance for the entire game (40 minutes) and without undue fatigue.

Condition involves:

1. Running, much of it at sprint speed, during crucial play situations, i.e., guarding, tackling, and dribbling a grounded ball.
2. Strength enough in shoulder, arms, back, and leg muscles to be able to catch, pass, dribble and kick a ball frequently and accurately during play.
3. Co-ordination, balance and agility to enable one to perform skillfully at the right time in such activities as:
   a. Approach and kick a ball
   b. Throw quickly and accurately
   c. Avoid contact with other players; or if contact is made, to maintain correct body position and balance so as to avoid injuries to player, himself or opponent.
   d. Change directions quickly

II. Skills

A. Dribbling ball
B. In passing a ground ball by kicking with the:
   1. Toe
   2. Heel
   3. Instep
   4. Inside of foot
   5. Outside of foot
C. In passing a fly ball by kicking
D. In heading the ball

- E. In trapping ground ball
    - 1. Bottom of foot
    - 2. One leg
    - 3. Both legs
- F. In overhead two-handed pass
- G. In charging opponent
- H. In tackling
- I. In passing a caught ball by means of:
    - 1. Chest pass
    - 2. Underhand pass - one and two hands
    - 3. Overhead pass - one and two hands
- J. In running with ball
- K. In goalkeeper duties
- L. In offensive and defensive team play
    - 1. Position play
    - 2. Areas covered by certain players
    - 3. Types of defenses and offenses
        - a. Advantages
        - b. Disadvantages
    - 4. Special situations
        - a. Out-of-bound play
        - b. Kick-off

III. Knowledges

- A. Rules - scoring, personal and technical fouls, etc.
- B. Terminology
- C. Offensive strategy
- D. Defensive strategy
- E. Methods of advancing the ball
- F. Physical condition, ability and capacity
- G. Strategy in special play situations
- H. Equipment - care and uses
- I. History of the game
- J. Basic safety precautions
- K. Each player's particular responsibility

IV. Attitudes

- A. Readiness to cooperate with teammates and coaches
- B. Readiness to accept decision of officials
- C. Readiness to play fairly at all times
- D. Readiness to act in sportsmanlike manner in victory or defeat
- E. Readiness to abide by training regulations
- F. Readiness to treat all persons with due respect and courtesy
- G. Readiness to control emotions properly in or under adverse conditions
- H. Readiness to compete with fullest effort at all times

TABLE TENNIS

H. Dan Corbin

Control Objectives

I. Condition

A. To develop prowess and to make possible near peak performance throughout the game.

B. Physiologic capacity to participate in several highly competitive games.

The condition involves:

1. agility to move in any direction
2. balance so as to keep the body under control
3. coordination to enable effective stroking
4. relaxed movements to stave off "tightening up."

II. Skills

A. Gripping the paddle
  1. forehand grip
  2. backhand grip

B. Stance
  1. for forehand stroke
  2. for backhand stroke

C. Service
  1. fundamentals
  2. stance

D. Footwork
  1. state of balance
  2. agility
  3. principle of opposition

E. Strokes
  1. half-volley stroke
  2. forehand chop drive
  3. backhand chop drive
  4. forehand chop
  5. backhand chop
  6. backhand flick

F. Strategy
  1. analyzing opponent's style
  2. taking the offensive
  3. forcing opponent's weaknesses

III. Knowledges

1. History of table tennis
2. Familiarity with rules
3. Selection and maintenance of equipment
4. Familiarity with terms
5. Ball flight principles

IV. Attitudes

1. Appreciation of game's worth
2. Importance of play spirit
3. Play courtesies

VOLLEYBALL

G. Lawrence Rarick

The control objectives, or major outcomes, for teaching volleyball for senior high school boys (Grades X, XI, and XII) are presented in terms of condition, skills, knowledges, and attitudes.

Control Objectives:

I. Condition

1. Physiological condition to maintain top level performance for the duration of the contest.

   More specifically this involves:

   a. Sufficient strength in the legs to permit powerful jumping movements and rapid changes in court position.
   b. Adequate strength in the arms for developing effective serving and passing skills and for blocking and receiving action.
   c. The strength, balance, and agility to orient the body quickly in defensive and offensive operations avoiding injury to himself and his fellow players.
   d. Adequate conditioning of the hands, fingers, ankles and knees necessary to withstand the demands of the game.

II. Skills

1. The Serve
   a. Underhand Serve - with the more proficient players the following variations in the underhand serve may be included:
      (1). The "Out"
      (2). The "In"
      (3). The "Drop"
      (4). The "Knuckle" ball
   b. Overhand Serve - with the more skilled players the following may be included:
      (1). The "Floater"
      (2). The "Drop"
2. Receiving the Ball
   a. Ability to quickly attain correct court position.

    b. Ability to rapidly assume the proper body position for receiving ball, including correct position of hands and arms as well as the foot and trunk position necessary for good balance.
    c. Ability to play the ball off the net.
3. Blocking
    a. Skill in use of one man block.
    b. Ability to effectively use the two men block.
4. The Pass
    a. Skill in use of two hand over-hand pass.
    b. Skill in use of single hand under-hand pass.
5. The Set Up
    a. Ability to assume the proper stance.
    b. Skill in delivery.
6. The "Spike"
    a. Ability to use the single leg take off.
    b. Skill in using the double leg take off.
7. Team Play. Ability to function effectively as a member of a team, performing effectively on offense and defense.
    a. Offense
        (1). Maintain proper team position on the serve.
        (2). Ability to function as a part of an attack pattern involving effective use of the set up and spike.
    b. Defense
        (1). Maintain correct position for receiving serve.
        (2). Ability to function in pattern of defensive play.

III. Knowledge

1. Knowledge of the rules.
2. Knowledge of the terminology.
3. Knowledge of offensive and defensive strategy.
4. Knowledge of scoring system.
5. Knowledge of equipment — its use and care.

IV. Attitudes

1. Readiness to accept willingly the decision of the officials.
2. Readiness to cooperate with teachers and fellow players.
3. Readiness to play fairly throughout the contest.
4. Readiness to act in a sportsmanlike manner in victory or defeat.
5. Readiness to practice the skills needed for effective team performance.

INTERPRETING THE PHYSICAL EDUCATION SERVICE PROGRAM TO COLLEGE ADMINISTRATORS AND ACADEMIC FACULTIES

Central Committee, Western College Men's
Physical Education Society

NOTE: This program was a followup of the Salt Lake City meeting of this group in the fall of 1956. The following summary attempts to represent a roundtable, tape-recorded discussion planned by the Program Committee of this organization and conducted by the Program Chairman, A. A. Esslinger, University of Oregon. Among the chief participants were three guests who represented college administrations and academic faculties. They were: Robert D. Rhodes, Dean of Instruction, Long Beach State College; James D. Finn, Professor of Higher Education, University of Southern California; and, Robert L. Brackenbury, Associate Professor of Educational Philosophy of the same institution. The other main participants were: Golden Romney, Washington State College; M. J. Hartvigsen, Brigham Young University; and, Ben Miller, University of California at Los Angeles. The Summarizer was a guest from the Midwest, Delbert Oberteuffer, Ohio State. The tape recording was managed by Tillman Hall, University of Southern California, and, Arthur Broten, University of Nevada.

The roundtable discussion included participation from members of the audience and concerned itself with the attempt to answer two questions: (1) What mistakes have we made in interpreting the Service Program to these persons? and (2) What are the steps suggested for improvement?

I. ERRORS IN INTERPRETATION

1. Use of inexperienced teachers in the Service Program.
2. Neglect of the duffer as well as the top performer who does not go out for organized teams.
3. Failure to provide expertness in teaching skills, regardless of instructor's amount of experience.
4. Use of spoken English by staff members often leaves something to be desired.
5. Neglect to provide student with answers to "Why?"
   Neglect to provide student with "mental content" of activities.
6. Direct the substance of the Service Program to the level of a high school mentality and personality.
7. Permit looseness and inefficiency in the administration of and instruction in the Service Program.

8. Failure to have available data from cost studies and facilities-use studies.
9. Use of students majoring in Physical Education as "assistant teachers."
10. Recognition of need for improvement comes too late. "When you're under the gun it's too late."
11. Make exaggerated claims for the program. Use of poor logic, including false analogies and unproved assumptions.
12. Failure to adequately define and identify work as a teacher, as distinct from coaching athletic teams.

II. SUGGESTIONS FOR IMPROVEMENT

1. Earn respect and recognition through genuine improvement.
2. Invite faculty members and administrators to visit classes.
3. Invite the college "family" to use facilities; provide special "classes."
4. Provide opportunities for students to discuss the "whys," study about, ask questions about the program.
5. Think through and reach decisions concerning the values and purposes of the program; then apply.
6. Improve public relations with the campus publications.
7. Eliminate the "kid stuff' so characteristic of program content and some common practices.
8. Start in-service help for those not specially prepared to teach at the college level.
9. Examine the meanings of key words such as physical education, fair play, sportsmanship, and the like.
10. Study ways that the program can contribute to the psychological maturity of the student.
11. Work out a sensible, defensible grading program.
12. Practice empathy. Opposition can best be met and the program "sold" if there is the "putting yourself in his place." Expecting everyone (particularly in a college environment) to favor the physical education program is not realistic. Nevertheless, almost everyone can be brought to the point of respecting it, if it is deserving of that attitude.

CONSTITUTION COMMITTEE

The Constitution Committee was charged this year with the following responsibility:

a. To review and evaluate the Constitution changes recommended by the "Function and Structure" Committee of the College Physical Education Association.

b. To recommend other changes in the Constitution and By-Laws of the College Physical Education Association.

c. To prepare a statement showing the sections of the present Constitution in which changes have been suggested - along with the proposed changes:

This statement is to be mimeographed and presented to the members in attendance at the annual business meeting of the Association in Santa Monica, California, where the proposed changes will be voted upon.

On behalf of the Constitution Committee, I am happy to report that the above duties have been discharged.

Respectfully submitted,

/s/ King J. McCristal
Chairman

COMMITTEE ON CONSTRUCTION AND EQUIPMENT

The Committee on Construction and Equipment has been progressing slowly but surely toward a rather ambitious undertaking of:

1. Contacting the State Directors and key personnel of the 48 states for a list of physical education facilities that have been built in the last 10 years.

   We have had good cooperation as a whole.

2. Sending a uniform questionnaire to the college and universities and a limited number of secondary schools for completion. The questionnaire contained such information as size, type, cost, special features and areas included in building. (Copy of questionnaire enclosed.)

   Our response has varied but as a whole, we have accumulated a worthwhile list of new facilities.

3. Following the questionnaires up with a request for photographs of blueprints (uniformly reduced to 8-1/2 x 11) and other pertinent information.

   This is where the Committee is at the present time. The photographs of blueprints need to be followed up since we have had few returns. Several schools have sent pictures of their facilities in lieu of the photographs of blueprints.

4. Studying plans for multilithing or micro-filming the list of facilities and blueprints of selected plans.

   These plans need to be made available to physical education people all over the country.

The Committee on Construction and Equipment therefore submits this Progress Report and recommends a continuation of this project. The collection and transposition of valuable information into permanent and useful form should meet a definite need. This information should then be placed at the central repository and kept up to date.

Respectfully submitted,

Karl Bookwalter
S. L. Cooper
James C. Loveless
Dean Trevor
Rix N. Yard
James W. Long, Chairman

HISTORICAL RECORDS COMMITTEE REPORT

In last year's report the committee recommended that the early Minutes of the Association be duplicated. Various methods of duplication were attempted, but due to the condition of the print and paper, microfilming was found to be the most feasible and successful.

The early Minutes of the Association were microfilmed at Queens College and three copies are in the process of being developed for distribution upon request by any member of the association.

A listing of all materials of the Association at the Paul Klapper Library of Queens College is being prepared to be mimeographed. It is planned that a copy will be sent to all members of the Association.

During the year a few documents were received at the Queens College Library to add to the collection of documents and articles. The Committee continues to urge members who possess historical documents and articles collections to send them to the Paul Klapper Library, Queens College, Flushing 67, N. Y., marked for the College Physical Education Association.

Respectfully submitted,

W. J. Baughman
B. L. Bennett
G. F. Foglia, Chairman
G. W. Howard
J. W. Masely
H. A. McCurdy

REPORT OF THE MEMBERSHIP COMMITTEE

January 2, 1958

A count of new members of the College Physical Education Association for the current year as of this date is 105 persons. Fifty-two joined the Association prior to the start of the convention, while 53 joined the Association in Santa Monica. The Association now has a total membership of approximately 700.

Prior to the convention, we had 652 members representing 43 states and 5 outlying areas such as Puerto Rico and Hawaii. The breakdown of this prior convention membership is as follows:

11 Western States - 101 - 15%
13 Southern States - 119 - 18%
11 Eastern States - 212 - 29%
13 Midwestern States - 240 - 38%

The five ranking states were:

1. New York - 83
2. Ohio - 67
3. California - 59
4. Michigan - 53
5. Illinois - 39

Of the 105 new members, 71 or 67.6% come from the 11 western states. A total of 20 states and 2 territories are represented by the new members.

A total of 50 members were dropped from the Association for failure to pay their dues, and 4 members passed away.

The net increase in membership is 51 persons.

The membership campaign during 1957 was conducted on a regional basis with each member of the Membership Committee responsible for recruiting new members in approximately 5-10 states each. The campaign consisted of three parts, all by direct mail. The following persons were contacted:

1. All "delinquent" dues paying members
2. "Less than three year" members

3. All chairmen of physical education departments in the colleges and universities listed in the ''Bluebook of College Athletics''

Samples of each of the three types of letters are attached to this report.

Considerable emphasis was placed upon recruiting members residing in the western portion of the nation. This was accomplished primarily through the efforts of the Convention Publicity and Hospitality Committee. Recruitment of western members also was accomplished by contacting all persons attending the Salt Lake City conference of physical educators held in the fall of 1956.

Accompanying all letters was a brochure describing the purposes of the Association and advertising the location of the 61st Annual Meeting. Remarks made by various members indicate that the brochures created favorable publicity for the Association.

Respectfully submitted,

M. M. Mackenzie, Chairman
R. J. Francis
R. J. Grambeau
J. W. Hendrix
J. E. Hewitt
J. J. Kevin
V. M. Moore
C. L. Palmer
H. B. Segrest
R. A. Snyder
E. G. Van Bibber

NECROLOGY COMMITTEE

The Committee regretfully reports the death during the past year of the following members:

C. W. Savage	Joined	association	in	1920 (Honorary)
George E. Little	"	"	"	1922 (Honorary)
W. L. Hughes	"	"	"	1926 (Active)
Frank Lloyd	"	"	"	1929 (Former)
Jack Sharman	"	"	"	1930 (Former)
Roy Mercer	"	"	"	1920 (Honorary)

Committee:
L. W. Olds, Chairman
E. C. Davis
C. R. Fall

CHARLES WINFRED SAVAGE

Charles Winfred Savage, Emeritus Professor of Physical Education, Oberlin College, born 1869, died January 17, 1957. He was the recipient of practically all of the honors available in his field. Mr. Savage was President of the Ohio Physical Education Association, Ohio Athletic Conference, College Physical Education Association and the American Physical Education Association. He was a member of the National Collegiate Athletic Association Football Rules Committee for twenty-three years. He served on innumerable national committees, such as Olympic Games Committee, President's Committee on Social Hygiene, White House Conference on Child Health and Protection, and the North Central Association of Colleges and Secondary Schools. He received the Fellowship Award, and was one of the first members of the American Academy of Physical Education. In 1938 he received the Oberlin Alumni Association Medal for notable service to Oberlin College, and the Oberlin athletic fields are officially designated the "Charles Winfred Savage Athletic Fields." In 1952 he received the highest honor bestowed by physical education: the Luther Gulick award for distinguished service to the profession.

Born in Churchville, New York, in 1869, Mr. Savage graduated from Oberlin in 1893. He was Instructor in Latin and Greek at Oberlin and Shadyside Academies until he became Professor of Physical Education and Director of Athletics at Oberlin College in 1906. He did graduate work at Harvard and Columbia Universities. He received an Honorary Master of Physical Education from Springfield College, and wrote numerous articles on physical education and athletics. He was one of the first Directors of Athletics to have full faculty rank and tenure in American higher education. Many of the early leaders in physical education were Oberlin graduates, and most of these were his students.

WILLIAM L. HUGHES

William L. Hughes, born January 30, 1895, and died February 7, 1957.

Received education from: Nebraska Wesleyan University, B.A., 1919; Columbia University, M.A., Ph.D., 1924 and 1932; D.Sc. in Ed., 1949, Boston University (honorary); D.Sc., 1955, Springfield College.

Taught: Oberlin College, DePauw University, Teachers College (Columbia) and Professor of Health, Physical Education, and Recreation, Head of Department, 1945-57, Teachers College, Temple University, Philadlephia, Pennsylvania.

Committees: President, National College Physical Education Association, 1934. Chairman, National Advisory Board, Division of Physical Fitness, Office of Civilian Defense, 1941-42. Consultant, Division of Physical Fitness, Office of Education and Federal Security Agency, 1942-43. Consultant, Research Division, N. Y. State Department of Education, 1944-47. Director, National Conference Undergraduate Professional Preparation in Health Education, Physical Education, and Recreation, 1948. Moderator, National Conference Graduate Study in Physical Education, 1948. Member Board of Education: Leonia, N. J., 1941-45; Abbington Board of Education, Abbington, Pennsylvania, 1950-1952. American Association of Health, Physical Education, and Recreation, National Board of Directors, 1940-1947, President 1944-46, District Representative, National Board of Directors, 1952.

Author of many textbooks.

Awarded the Luther H. Gulick Award 1954.

GEORGE EDKIN LITTLE

George Edkin Little, a devotee to college athletics all his life, died February 23, 1957, in New Brunswick, New Jersey.

A graduate of Ohio Wesleyan University, Mr. Little was executive secretary of the National Football Foundation and Hall of Fame. He served Rutgers University as Director of Athletics from 1932 to 1954. Previously, he was associated with Miami University (Ohio), the University of Cincinnati, the University of Michigan and the University of Wisconsin as a coach and administrator.

In July 1955, Mr. Little was elected to the Hall of Fame as a coach.

He served as a lieutenant with the Army during World War I, seeing front-line duty in France.

Mr. Little was secretary of the Physical Education Society of Ohio, 1919-21. He was chairman of the intercollegiate athletic section of the

National Physical Education Association, 1934-35; and president of the Middle Atlantic States Athletic Conference, 1939-1943.

Mr. Little was elected first vice-president of the New Jersey Association of the Amateur Athletic Union, 1939-1941; and held active and allied memberships in the American Football Coaches Association, 1921-1941.

He was a member of Alpha Tau Omega fraternity; the Rotary Clubs of Madison, Wisconsin, and New Brunswick; Post 29, American Legion; and the Union Club of New Brunswick.

DR. LeROY MERCER

Dr. E. LeRoy Mercer, sixty-eight, retired dean of the Physical Education at the University of Pennsylvania and one of Penn's greatest all-time athletes, died last night. (July 3, 1957).

Dr. Mercer's college sports career spanned the years 1909 to 1913, and was crowned by his selection twice as fullback on Walter Camp's All-America football team. He was captain of the Penn football team for two years and was a sprinter and broad jumper on the track team.

He became head of the physical education department at Penn in 1931, during a period when the university's athletic program underwent a major reform through the so-called Gates Plan. Under the reform, the university's varsity sports program was in effect de-emphasized.

A supplementary member of the 1908 Olympic team and a full-fledged member of the 1912 American Olympic squad at Stockholm, Dr. Mercer was a broad jump and pole vault competitor.

A contemporary of the renowned Jim Thorpe, Dr. Mercer played against the late Indian star in a 1912 football game, during which he scored the deciding touchdown in Penn's 34-26 victory over Thorpe's Carlisle eleven.

REPORT OF COMMITTEE ON NOMINATIONS

Mr. President and Members of the Association:

Mr. Ernest B. Smith, University of Georgia, who is Chairman of the Nominating Committee, found it impossible to be present at this meeting. He requested me to present the Committee's report. The third member of the Committee is Don Cash Seaton, University of Kentucky.

Article IV - Section 1 of the Constitution states:

> "The officers and the Council Member-at-Large are to be elected by the membership at the annual business meeting. The Nominating Committee shall prepare a slate of three names for each office and for the Council Member-at-Large. Additional nominations may be made from the floor at the business meeting. A majority vote with a quorum present shall be required for election. If no candidate receives a majority on the first ballot the two candidates receiving the highest number of votes shall be voted on."

It should be noted that according to the Constitution only the Secretary-Treasurer may be re-elected for a consecutive term of service.

In addition it should be noted that none of the amendments approved on January 2, 1957, to the Constitution and Bylaws affects the content or procedure of this report.

The Committee respectfully submits the following slate of names of members of the Association. We believe that they will be energetic, capable, and enthusiastic leaders for the C.P.E.A. in the crucial period ahead.

Each individual has given permission to include his name on the slate. The names for each office are presented alphabetically.

President-Elect

1. C. O. Jackson, University of Illinois
   Champaign, Illinois
2. Karl C. H. Oermann, University of Pittsburgh
   Pittsburgh, Pennsylvania
3. Lloyd Olds, Eastern Michigan College
   Ypsilanti, Michigan

Secretary-Treasurer

1. Richard E. Jamerson, University of North Carolina
   Chapel Hill, North Carolina
2. James W. Long, University of Toledo
   Toledo, Ohio

3. Lloyd Messersmith, Southern Methodist University
   Dallas 5, Texas

Council-Member at Large

1. Karl W. Bookwalter, University of Indiana
   Bloomington, Indiana
2. R. J. Francis, University of Wisconsin
   Madison, Wisconsin
3. R. A. Snyder, University of California
   Los Angeles, California

Respectfully submitted,

Dr. Ben Miller
Dr. Don Cash Seaton
Ernest B. Smith, Chairman

RESOLUTIONS

WHEREAS this has been a highly successful convention, and

WHEREAS the arrangements and accomodations have been most effectively planned,

BE IT RESOLVED that this Association extend its sincerest appreciation and thanks to all persons who have had a part in the success of this convention, and specifically to:

The Mayor of the City of Santa Monica, California

The Chamber of Commerce of the City of Santa Monica, California

The Management of the Miramar Hotel, Santa Monica, California

The University of Southern California officials and faculty

The University of California, Los Angeles officials and faculty

The Santa Monica City College officials and faculty

The Officers, Committee Chairman and other members of the Association who gave of their time and efforts to make this a successful convention

Respectfully submitted,

G. F. Loebs, Chairman
P. H. Derr
C. V. Langton

REPORT OF POLICIES COMMITTEE

The Committee understands that certain recommendations made by the Policies Committee in the past years have not been carried out, so the present Committee wishes to reaffirm those policies, previously reported to and accepted by the Association, and recommend that immediate attention be given to these recommendations by incoming Association officers. We refer specifically to the committee report accepted at the 1954 convention of the Association and included on pp. 222-224, of the Proceedings for the 57th Annual Convention. In brief, this report included a statement of purpose for the Association and recommended the preparation of a policy book which would contain a list of all previous policies adopted by the Association.

Your present Committee wishes to recommend that the Policy Book contain, in addition to general Association policies, a more complete statement describing duties of Association officers than that which now appears in the Constitution. Specific duties of the respective officers should be written out in some detail in order that incoming officers of the Association will have some guidance in the performance of their respective duties. This Policy Book, when completed, should be printed and copies kept on file by the Secretary of the Association for distribution to incoming officers of the Association and to Association members who may request a copy.

It is further recommended that incoming officers of the Association take immediate steps toward the implementation of these recommendations.

Respectfully submitted,

J. E. Hewitt
L. L. Messersmith, Chairman
H. H. Neilson
J. R. Nixon
J. H. Shaw
R. A. Snyder

CONVENTION PUBLICITY AND HOSPITALITY COMMITTEE

A. Membership:

R. K. Cutler, University of Washington
E. C. Davis, University of Southern California
A. A. Esslinger, University of Oregon
J. W. Fredericks, University of Southern California
J. E. Hewitt, University of California, Riverside
C. V. Langton, Oregon State College
H. Lobdell, U. S. Air Force Academy
H. J. McCormick, Sacramento State College
J. E. Nixon, Stanford University
C. L. Palmer, University of Southern California
V. Rowen, San Francisco State College
C. Settle, New Mexico Highlands University
L. J. Sparks, Willamette University
R. G. Thompson, Arizona State College, Tempe
W. G. Vandenburg, Fresno State College
D. E. Richardson, University of California, Los Angeles

B. Activities of the Committee:

1. A plan of action was devised and copies were sent to all Committee members on May 10, 1957. (Enclosure A.)
2. General information sheet and membership blanks were sent to Committee members on August 15, 1957. (Enclosure B.)
3. First news release for the Conference and a list of places to visit in Southern California were mailed from UCLA to each Committee member on October 14, 1957. Each Committee member distributed this information to CPEA membership as assigned. (Enclosures C, D)
4. Second news release for the Conference, (Enclosure E), and a blank for individual publicity (Enclosure F) were sent to Committee members on November 27, 1957.
5. The following items were sent to President Art Daniels:
    a. List of housing available in Santa Monica
    b. Transportation information from airports and stations
    c. Rose Bowl game information
6. Press information was provided for distribution by the UCLA Publicity Office. It included:
    a. Highlights of the Conference
    b. Picture of President Daniels
    c. A short history of the CPEA

   d. Biographical sketches for
      (1) Bob Richards
      (2) Shane MacCarthy
      (3) Fredric P. Woellner
   e. (See Enclosure G)

7. Cooperated with the Santa Monica Chamber of Commerce and the Conference Manager in proofreading and the printing of the program.
8. Planned and executed the details for the Reception. Host institutions sharing the expense were the University of Southern California and the University of California, Los Angeles.
9. Helped to plan and execute the mechanical arrangements for the Conference Banquet.
10. Cooperated with the Santa Monica Chamber of Commerce in the registration procedure.
11. Made arrangements for trips and excursions for members and their families during the Conference.
12. Recommendation: There should be two committees, one for Publicity and one for Hospitality.

Respectfully submitted,

Deane E. Richardson, Chairman

CONVENTION MANAGER'S REPORT

This opportunity is taken to thank all those who contributed to making adequate plans for the Sixty-First Annual Meeting of the College Physical Education Association. Sincere appreciation is extended to the officers, in particular, and the various committees for their untiring efforts in conducting the work of the Association.

Further, gratitude is extended to Mr. William W. Donnelly, Manager, Hotel Miramar and all those persons connected with the management who assisted so ably in making arrangements for the meetings. Finally thanks are offered to the members of the Santa Monica Chamber of Commerce for their cooperation in promoting this endeavor.

It has been a real pleasure serving the Association.

Respectfully submitted,

Carl A. Nordly
John M. Cooper
Ray Snyder, Chairman

CONVENTION SITES COMMITTEE

At the 59th annual convention at Daytona Beach a committee on policies made the following recommendation, "To equalize, over a period of years, the distance traveled to meetings by members of the association residing in various sections of the country, the principle of periodic rotation among cities shall be given consideration in the selection of a site for annual conventions."

Dr. Arthur Daniels, President of the C.P.E.A., appointed a Convention Sites Committee whose main function was to work out a plan of regional rotation for our annual meetings. President Daniels suggested that the committee project convention sites for the next eight or ten years.

Members of the committee came to these conclusions and for the most part reacted as follows:

It was the general concensus of the committee that in selecting sites, the primary consideration should be service of the association to the profession itself.

The committee indicated, too, that conventions for the most part, should be held in areas with the heaviest concentration of members.

The majority felt that the selection of a convention site because of "local color" or side attractions should not necessarily be a determining factor.

Most of the members of the committee indicated that on occasion the convention site should be utilized as a "foil" to attract new members. The primary consideration, however, was to serve its present membership.

It was generally agreed that tentative convention sites should be set up in advance on a geographic rotation basis. There was unanimous agreement, however, that the suggested plan of rotation was tentative and should merely be a guide for current executive committees to follow.

The proposed tentative plan of rotation is as follows:

1957	Far West	Santa Monica, California
1958	East	Syracuse, New York
1959	Midwest	Chicago, Illinois
1960	East	Baltimore, Maryland
1961	Midwest	Des Moines, Iowa
1962	Far West	San Francisco, California
1963	East	Philadelphia, Pennsylvania
1964	Midwest	Kansas City, Missouri
1965	East	New York, New York

1966	Midwest	Columbus, Ohio
1967	Far West	Seattle, Washington

The Southern District as a convention site was not considered because of a policy statement included in the 59th Annual Proceedings of the C.P.E.A. – "We will not consider any places where there will be any restrictions on Association members with reference to housing, attendance at meetings or other factors tending to divide the membership."

Respectfully submitted,

Clifford Brownell
Louis Keller
Robert Korsgaard
Henry Shenk
Raymond A. Snyder
Thomas E. McDonough, Sr.
Chairman

REPORT OF JOINT COMMITTEE ON IMPLEMENTATION OF INTRAMURAL SPORTS

Committee Members
P. V. Keen, University of Oklahoma
P. F. Cieurzo, Rhode Island University
R. J. Grambeau, University of Michigan

The Washington Intramural Conference Implementation Committee, established by the presidents of the C.P.E.A., AAHPER and NAPECW was unable to meet during the past year. However, through correspondence, the following activity was reported:

Spurgeon Cherry, University of Florida
1. Presentation of conference information to state coaches groups.
2. Report of considerable use by high schools in the state.
3. Considerable use in classes.

Dorothy Wirthwein, Ohio State University
1. Publicized at Midwest Association for Physical Education of College Women meeting.
2. Sold some 50 or 60 copies (which were received on consignment from the AAHPER) to members.
3. Publicized at Ohio College Teachers of Physical Education meeting.
4. Report found to be useful on many occasions. Its use has resulted in the formation of a Campus Activity Council at Ohio State University in an effort to coordinate recreational activities.

Frank Beeman, Michigan State University
1. Presented to local service clubs.
2. Used in intramural classes.

Paul Keen, University of Oklahoma
1. Reported at Central Oklahoma District Association meeting.
2. Reported at State Teachers Convention at Oklahoma City.
3. An outgrowth of the report is a survey of intramural participation in high schools and colleges in Oklahoma which is now being conducted.

Rod Grambeau, University of Michigan
1. Reported to Western Conference Intramural Directors meeting.

2. Used in graduate and undergraduate classes in physical education.
3. Doctoral dissertation planned concerned with report.

Suggested recommendations received for action of the Continuing Committee on Implementation included:

1. That a national implementation committee be formed by the AAHPER to direct the action of the various implementation committees.
2. Suggest that a conference on public relations be held to emphasize the best methods of "how to spread the word," and "how to get get action."
3. That the re-formulating of the operating code of the present implementation committee be considered.
4. A suggestion that thought be given to the formulation of an evaluation schedule for intramurals similar to the ones now used in health, education, physical education, and recreation.

Respectfully submitted,

Rodney J. Grambeau, Chairman

REPORT OF THE REPRESENTATIVE TO THE NATIONAL COMMITTEE FOR THE IMPROVEMENT OF PROFESSIONAL PREPARATION IN HEALTH EDUCATION, PHYSICAL EDUCATION AND RECREATION

Your representative attended the meeting of the Committee at the New Colonial Hotel, Washington, D. C., on February 20, 1957.

The officers for 1956-57:

Chairman:	Carl F. Nordly, University of California (1958)
Vice-Chairman:	William F. Meredith (To serve one year in place of Minnie L. Lynn, whose five year term of appointment to the committee expired in 1957)
Secretary-Treasurer:	Holger F. Kilander (1959)
Members-at-large:	Harlan G. Metcalf, University State Teachers College, Cortland, New York Robert Yobo, Indiana State Department of Health

1. The Treasurer reported:

Balance on hand, March 25, 1956	$274.47
Receipts	00.00
Disbursements	15.00
	$259.47

2. The following were present:

George F. Anderson)	—	(American Association for Health,
Carl F. Nordly)		(Physical Education and Recreation
Charles Crawford	—	American Recreation Society
John G. Scherlocker	—	American Institute of Park Executives
Holger F. Kilander	—	American School Health Association
Bernice Moss	—	American Public Health Association
William F. Meredith)	—	(College Physical Education Asso-
Lloyd M. Jones)		(ciation
Harlan G. Metcalf	—	College Recreation Association
Minnie L. Lynn)	—	(National Association for Physical
Lucille Verhulst)		(Education of College Women

Richard H. Carrigan — National Commission on Teacher Education and Professional Standards of NEA
J. Edgar Caswell — The Conference of State Directors of Public Health Education
George E. Dickie — The National Recreation Association
Ruth Abernathy) — (Society of State Directors of Health,
Harold K. Jack) (Physical Education and Recreation

No reports from associations were read due to limitation of time. Reports including that for the College Physical Education Association were attached to the Minutes sent out by the Secretary-Treasurer.

3. The Secretary-Treasurer reported a problem growing out of the five year term of representatives, and the frequent changes necessitated by changes in employment and other factors.

The Executive Committee was instructed to appoint a committee to study the Operating Code with a view to changes in the terms of appointment.

4. Workshop to Develop Guides and Standards for Professional Preparation in Health Education, Physical Education and Recreation.

This Workshop held in Washington, D. C., February 18-20, 1957, was planned by a committee composed of William L. Hughes, Chairman; H. F. Kilander, Health Education; Joy E. Kistler, Physical Education; Earl Kauffman, Recreation, with the assistance of Carl L. Nordly, and of Jackson M. Anderson of the AAHPER staff. At the time of the Workshop Joy E. Kistler was unable to be present and William F. Meredith served as chairman of the Sub-section on Physical Education.

During the three days, the three subcommittees evaluated the Standards and Guides for the Accreditation of Teacher Education (1957) of the National Council on Accreditation. Out of this developed a supplement to the aforementioned Standards and Guides, and a revised version to be used for self-evaluation by institutions.

5. The next meeting of the Committee will be held in Kansas City in conjunction with the National Convention of the AAHPER.

Respectfully submitted,

William F. Meredith,
Representative

JOINT COMMITTEE ON PHYSICAL EDUCATION AND ATHLETICS
C.P.E.A., A.A.H.P.E.R. and N.C.A.A.

The Committee met in Columbus during last year's CPEA Convention. It was decided at that time to attempt a "Working Conference" for athletic directors. Such a conference would try to set up principles in the various areas of athletic administration.

The Joint Committee met again in St. Louis in January at the time of the NCAA Convention to work out details of a "Working Conference." The NCAA Council suggested a questionnaire be sent out to see if the athletic directors were interested and would attend. I am enclosing a copy of questionnaire and explanatory letter which was finally sent out by NCAA on Dec. 2, 1957. The response has been good. About 125 athletic directors have indicated they would attend.

The Joint Committee will meet in Philadelphia next week and if the NCAA agrees to underwrite the Conference, we will probably go ahead. Members of the CPEA should give active support to such a Conference. It will be a real opportunity to take a positive step forward in intercollegiate athletics, with an emphasis on principles rather than restrictive regulations.

Respectfully submitted,

Lysle Butler
Chairman, Joint Committee

FINANCIAL STATEMENT
Dec. 1956 — Dec. 1957

BALANCE: December 1, 1956			Cash	1203.90
			Reserve	1677.56
				2881.46
INCOME:				
Membership Dues		2464.44		
Ohio State (Speaker)		125.00		
Banquet Tickets		475.00		
Touchfootball Rules		103.14		
Sale of Proceedings		701.34		
Interest on Reserve		42.18		
		3911.10		3911.10
	Total Income and Reserve, Dec. 1, 1957			6792.56
EXPENSES:				
Convention:	Speaker	125.00		
	Banquet	500.00		
	Hotel	25.00		
	Programs	77.00		
	Name Tags	25.04		
	Projector	12.88		
	Gen. Expense	35.00		
Membership Committee		72.40		
President's Expense		20.00		
Refunds on Dues		31.50		
Bond(Secretary-Treas.)		10.00		
American Council Educ.		50.00		
Joint Committee NCAA-AAHPER		25.00		
AAHPER (Proceedings)		2394.59		
Office Expense		208.66		
Sec'y., Clerical and Services		300.00		
		3912.07		3912.07
	Total Cash and Reserve, Dec. 1, 1957			2880.49
	Less Reserve:			1719.74
	CASH BALANCE, December 1, 1957			1160.75

COLLEGE PHYSICAL EDUCATION ASSOCIATION
EXECUTIVE COUNCIL MEETING
January 1, 1958

Present: A. S. Daniels, President; J. H. Shaw, President-Elect; R. E. Jamerson, Secretary-Treasurer; C. O. Jackson, Council Member-at-large; C. L. Brownell, Parliamentarian.
Absent: E. B. Smith, Past President

1. Approved report of Convention Manager.
2. Instructed President to inform Ross Merrick that CPEA looks favorably upon request of NAIA for representation upon Joint Committee on Athletics of CPEA-NCAA-AAHPER, but action is possible only upon the agreement of all parties to said proposal and that presently all parties have not so agreed.
3. Received and discussed report of Convention Sites Committee.
4. Discussed report of Editorial Committee and problems relating to cost of publication of Proceedings.

Respectfully submitted,

R. E. Jamerson
Secretary-Treasurer

EXECUTIVE COUNCIL MEETING
January 4, 1958

Present: J. H. Shaw, President; C. O. Jackson, President-Elect; R. E. Jamerson, Secretary-Treasurer; R. A. Snyder, Council Member-at-large; A. S. Daniels, Past President; C. L. Brownell, Convention Parliamentarian.

1. Approved holding convention in New York City on December 28-30, 1958. Instructed President to contact New York hotels regarding convention facilities and to recommend back to the council for final approval a specific convention site.
2. Approved holding 1959 convention in Cincinnati, Ohio. Instructed President-Elect to contact hotels regarding facilities and report back to Council with recommendation for specific convention site.
3. Instructed President to contact the Athletic Institute regarding revenue for the Association operating fund.
4. Instructed President to take action, if requested, regarding Council representative attending fall meeting of Association members of Western States at Reno, Nevada.

5. Instructed Secretary to release address of Dr. Woellner to Dr. Means of the California Department of Education for distribution prior to publication of Proceedings.
6. Instructed President to appoint as section chairman only those persons who indicate that they expect to attend the forthcoming convention.
7. Instructed Secretary to submit revised copy of Constitution to Dr. C. L. Brownell for approval before printing in Proceedings.

Respectfully submitted

R. E. Jamerson
Secretary-Treasurer

COLLEGE PHYSICAL EDUCATION ASSOCIATION
BUSINESS MEETING
January 3, 1958

The sixty-first Annual Meeting of the College Physical Education Association was held in Santa Monica, California, on January 3, 1958. The meeting was called to order by President A. S. Daniels at 3:30 P.M. in the Palm Room of the Miramar Hotel. Approximately one hundred twenty five members were present (one hundred sixty eight was the official convention registration).

President Daniels reported briefly on matters of general interest to the Association regarding his duties and actions as President during 1957.

The Secretary-Treasurer's report was presented with the motion that it be accepted, second by D. E. Richardson, passed.

President Daniels called for reports of committees as follows: (Discussion comments appear here, detailed reports by Committee Chairman appear elsewhere in the Proceedings).

STANDING COMMITTEE REPORTS:

Constitution. This report was given at a special business session of the Association on January 2, 1958. A. S. Daniels presented the report in the absence of the chairman, K. J. McKristal. D. K. Brace moved adoption of the report in toto with instructions that the Secretary incorporate proposed changes into the Constitution, second by T. E. McDonough. Following discussion an amendment, to change the section affecting the membership of the Executive Council from a limiting figure of five section chairmen plus elected Association officers to all section chairmen plus Association officers, and correspondingly the necessary qualifications for a Council quorum, was proposed by J. H. Shaw, second by L. L. Messersmith. Upon call for a vote the report, as amended, was adopted.

Construction and Equipment. J. W. Long (report by R. E. Jamerson) Chairman, moved acceptance of the report, second by D. E. Richardson, passed.

Finance. F. J. Holter (report by R. E. Jamerson) Chairman, moved acceptance of report, second by D. E. Richardson, passed.

Historical Records. G. J. Foglia (report by R. E. Jamerson) Chairman, moved acceptance of report, second by D. E. Richardson, passed.

Membership. M. M. Mackenzie, Chairman, moved acceptance of report, second by C. L. Palmer, passed. New members present asked to stand and be welcomed into the Association.

Necrology. L. W. Olds, Chairman, reported passing of W. L. Hughes, an active member, C. W. Savage, E. L. Mercer and George Little, honorary members, and two former members of the Association - J. R. Sharman and Frank Lloyd. The membership observed a moment of silence in respect of their departed colleagues.

Nominations. E. B. Smith (report by B. W. Miller) Chairman, presented the following slate of officers: President-Elect - C. O. Jackson, K. C. H. Oermann, L. W. Olds. President Daniels called for nominations from the floor. T. E. McDonough moved nominations close, second by W. W. Harkness, passed. C. O. Jackson elected on first ballot. Secretary-Treasurer - R. E. Jamerson, J. W. Long, L. L. Messersmith. President Daniels called for nominations from the floor; C. R. Kovacic moved nominations close, second by W. P. Fraleigh, passed. R. E. Jamerson elected on first ballot. Council Member-At-Large - K. W. Bookwalter, R. J. Francis, R. A. Snyder. President Daniels called for nominations from the floor; J. E. Hewitt moved nominations close, second by Arthur Weston, passed. R. A. Snyder elected on first ballot.

Resolutions. G. F. Loebs, Chairman, no report. Secretary instructed to prepare resolutions expressing appreciation to proper persons for their contribution to over-all success of this convention. Motion by J. H. Shaw, second by C. O. Settle, passed.

Operating Codes. L. A Hess (report by R. E. Jamerson) Chairman, moved acceptance of report, second by D. E. Richardson, passed.

Policies. L. L. Messersmith, Chairman, moved acceptance of report, second by M. C. Wakefield, passed.

Public Relations. R. J. Frances, Chairman, no report.

Convention Publicity and Hospitality. D. E. Richardson, Chairman, moved acceptance of report, second by L. L. Messersmith, passed.

Convention Manager. R. A. Snyder, Chairman, moved acceptance of report, second by C. O. Settle, passed.

Convention Sites. T. E. McDonough, Chairman, moved acceptance of report, second by C. A. Bucher, passed. (This report was given at special business session on January 2, 1958)

JOINT COMMITTEE REPORTS:

Co-Educational Relations. R. T. Kretchmar (report by R. E. Jamerson) Chairman, moved acceptance of report, second by D. E. Richardson, passed.

Intramural Conference Implementation. R. J. Brambeau, Chairman, moved acceptance of report, second by T. N. Metcalf, passed.

National Committee for Improvement of Professional Education. W. R. Meredith (report by R. E. Jamerson) Chairman, moved acceptance of report, second by D. E. Richardson, passed.

Physical Education and Athletics. L. K. Butler (report by R. E. Jamerson) Chairman, moved acceptance of report, second by D. E. Richardson, passed.

Physical Education Conference Implementation. H.C. Leibee, Chairman, moved acceptance of report, second by L. L. Messersmith, passed.

NEW BUSINESS:

Brief discussion of possible change of meeting dates. Straw vote indicated slight majority of those present favoring early January date over late December date. (Similar vote at 1955 meeting in Florida showed equal division between fall, December and spring dates). Council instructed to explore possibilities for future action.

D. K. Brace moved that outgoing officers be given hand in appreciation of fine work on behalf of the association, second by J. F. Martin. There being no further business the meeting was adjourned by outgoing President Daniels.

Respectfully submitted,

R. E. Jamerson
Secretary-Treasurer

COLLEGE PHYSICAL EDUCATION ASSOCIATION

CONSTITUTION

ARTICLE I - NAME

Section 1 - The organization shall be known as the COLLEGE PHYSICAL EDUCATION ASSOCIATION FOR MEN.

ARTICLE II - OBJECTIVES

Section 1 - Objectives of the ASSOCIATION relate to the advancement of physical education in institutions of higher learning, including: the basic instructional program; intramural athletics; teacher education; and such other activities as may be assigned to a given college department. More specifically, the objectives are:

a. To improve the contributions of physical education and, where appropriate, the related fields of health education and recreation, to higher education.

b. To identify and define the major issues and problems confronting the profession, particularly those of higher education, and resolve them to the best possible ends.

c. To gather, analyze, interpret, and organize the research needed to resolve the major issues and/or problems facing the profession of physical education, especially those which are concerned with higher education.

d. To develop interdisciplinary relationships with kindred fields of knowledge for the light they may shed on the nature and values of physical education (e.g., anthropology, phychology, sociology, sports medicine, etc.).

e. To improve public relations through increasing public understanding of the nature and purposes of physical education in American and world life.

ARTICLE III - MEMBERSHIP

Section 1 - The ASSOCIATION shall consist of members as hereinafter provided.

ARTICLE IV - GOVERNMENT

Section 1 - The government of the ASSOCIATION shall be vested in an Executive Council, officers, committees, and members as hereinafter provided.

ARTICLE V - SECTIONS

Section 1 - The ASSOCIATION may establish sections within its organizational structure as hereinafter provided.

ARTICLE VI - MEETINGS

Section 1 - The ASSOCIATION shall conduct annual and special meetings as hereinafter provided.

ARTICLE VII - AMENDMENTS

Section 1 - This Constitution may be amended at any regular or special meeting of the ASSOCIATION, or by mail vote. A favorable vote of three-fourths (3/4) of the members present at a regular or special business meeting, or a majority of the current membership by mail vote, shall be required for amendment; no mail vote shall be valid beyond thirty (30) days after official notification. In either case (regular or special meeting) a quorum must take action as hereinafter provided.

BY-LAWS

ARTICLE I - MEMBERSHIP AND DUES

Section 1 - There shall be two (2) types of membership; active members and honorary life members. All members shall have equal voting privileges. Active members, only, shall pay dues — as provided in Sections 2, 3, and 4 below.

Section 2 - Active members are men actively engaged in teaching or administering one or more components of college physical education, men with teaching experience pursuing graduate study, or men engaged or interested in allied fields.

a. The Membership Committee, as provided in Article VIII, Section 4 shall review the qualifications of all applicants for active membership and report its findings to the Secretary-Treasurer. A satisfactory report by the Membership Committee shall empower the Secretary-Treasurer to carry the person on the membership roster, so long as he remains in good standing as provided in the following Section.

Section 3 - Active membership dues shall be five dollars ($5.00) per fiscal year — as provided in Article X, Section 5 — payable to the Secretary-Treasurer upon official notification by him. Members delinquent in their annual dues for a period of one (1) year shall be dropped from the rolls; reinstatement consists of paying the annual current dues.

Section 4 - Honorary life membership may be conferred upon Active members or former Active members by a two-thirds (2/3) affirmative vote at a regular business meeting. Honorary life members shall enjoy all the rights and privileges of active members except the payment of dues.

ARTICLE II - EXECUTIVE COUNCIL

Section 1 - The Executive Council shall consist of the President, President-Elect, the immediate Past President, the Secretary-Treasurer, one (1) Member-at-Large, and all elected Section Chairmen as provided in Articles III, IV, and V below. All members of the Executive Council shall have equal voting powers.

Section 2 - The Executive Council shall manage the general affairs of the ASSOCIATION, except as hereinafter specified. These general affairs shall consist of: (a) fulfilling directives given to it by the membership at the annual business meeting, or by mail vote; (b) presenting matters of policy to the membership at the annual business meeting, or by mail vote, for adoption or ratification; (c) acting for the ASSOCIATION between annual meetings; and (d) maintaining an active professional program throughout the year.

ARTICLE III - OFFICERS AND DUTIES

Section 1 - Officers of the ASSOCIATION shall consist of the President, President-Elect, and Secretary-Treasurer.

Section 2 - The President shall preside at all ASSOCIATION and Executive Council meetings, and appoint all committees as prescribed in Article VIII. He shall call and make appropriate arrangements for the place and conduct of all meetings of the ASSOCIATION and Executive Council as provided in Article VI. He shall supervise the program planning for all ASSOCIATION meetings as provided in Section 3 below. He shall provide for an annual audit of the Secretary-Treasurer's accounts as provided in Section 4 below. He shall serve as an ex-officio member of all committees as provided in Article VIII.

Section 3 - The President-Elect shall, during the absence of the President, perform all duties of the President and, if the office of the President becomes vacant, the President-Elect shall succeed to the presidency for the unexpired term. The President-Elect shall succeed to the presidency at the normal expiration of the President's term of office as provided in Article IV. The President-Elect shall plan the ASSOCIATION program for its regular annual meeting, under the supervision of the President as stipulated in Section 2 above.

Section 4 - The Secretary-Treasurer shall perform all duties usually incumbent upon these offices, edit and cause to be published the Proceedings of the annual meeting and other publications, in accordance with Article IX, collect dues, pay ASSOCIATION bills on approval by the President, assume general charge of all monies belonging to the ASSOCIATION, render a financial account to members at the annual business meeting, and conduct mail voting procedures as authorized by the President. The Secretary-Treasurer shall be bonded by the ASSOCIATION to the sum of one thousand dollars ($1000.00) per annum. He shall receive the sum of three hundred dollars ($300.00) per year for clerical and other services, if funds permit as determined by the Executive Council.

ARTICLE IV - ELECTION OF OFFICERS AND THE COUNCIL MEMBER-AT-LARGE

Section 1 - Officers and the Council Member-at-Large shall be elected by the membership at the annual business meeting. A Nominating Committee, consisting of three members, shall be appointed by the President at least three (3) months preceding the annual business meeting at which officers and the Council Member-at-Large are to be elected. The Nominating Committee shall prepare a slate of three names for each office and for the Council Member-at-Large. Additional nominations may be made from the floor at the annual business meeting. A majority vote, with a quorum present, shall be required for election: if no candidate receives a majority on the first ballot, the two candidates receiving the highest number of votes shall then be voted upon. Elections shall be by secret ballot.

Section 2 - Officers and the Council Member-at-Large shall be elected for one (1) year, extending from the close of the annual meeting at which they are elected to the close of the next annual meeting at which their successors are elected. If for some unusual reason a quorum be not present at the election of officers — as provided in Article VII, Section 1 — the incumbent officers and Council Member-at-Large shall remain in their respective positions for the ensuing year.

Section 3 - The President, President-Elect, and Council Member-at-Large shall not immediately succeed themselves in the same office, except as specified in Section 2 above. The Secretary-Treasurer may be reelected from year to year at the pleasure of the membership.

Section 4 - Vacancies, except as provided in Article III, Section 3, shall be filled by the Executive Council pending the regular election.

ARTICLE V - SECTIONS

Section 1 - The ASSOCIATION may establish sections within its organizational structure to promote the activities of professional interest groups. Examples are: basic instructional programs; intramural athletics; teacher education; intercollegiate athletics; research; and others.

Section 2 - The membership may authorize the establishment of any given section at a regular business meeting by a majority vote upon written application by twenty-five (25) current members stating the purpose and function of the proposed section and upon recommendation by the Executive Council -- provided a quorum takes action as prescribed in Article VII.

Section 3 - Each section shall elect its own officers consisting of a Chairman, Chairman Elect, and Secretary at the annual section meeting. A Nominating Committee consisting of three (3) section members shall be appointed by the Chairman at least three months preceding the annual section meeting at which the section officers will be elected. The Nominating Committee shall prepare a slate of two (2) names for each office. Additional nominations may be made from the floor. A majority vote shall be required for election. If there are more than two (2) candidates and no candidate receives a majority on the first ballot, the two candidates receiving the highest number of votes shall then be voted upon. Elections shall be by secret ballot.

Section 4 - Section officers shall be elected for one year, extending from the close of the meeting at which they were elected to the close of the next annual meeting at which their successors are elected. Section officers shall not immediately succeed themselves in the same office.

Section 5 - The Chairman shall preside at all section meetings which shall be open to the entire ASSOCIATION membership. He shall supervise the program planning for all section meetings held during the annual meetings of the ASSOCIATION. He shall also be responsible for pursuing professional activities throughout the year which are pertinent to the interests of the section. He shall be responsible for the conduct of section activities in a manner consistent with the intent and stated provision of the ASSOCIATION'S Constitution and By-Laws. By virtue of his office as Section Chairman, he shall serve as a member of the Executive Council of the ASSOCIATION.

Section 6 - The Chairman-Elect, during the absence of the Chairman, shall perform all the duties of the Chairman, and, if the office of the Chairman becomes vacant, the Chairman-Elect shall succeed to the chairmanship for the unexpired term. The Chairman-Elect shall succeed to the Chairmanship at the normal expiration of the Chairman's term of office. The Chairman-Elect shall plan the section program for its regular annual meetings under the supervision of the Chairman as stipulated in Section V above.

Section 7 - The Secretary shall keep minutes of all business transactions at section meetings. These minutes shall be passed along to each succeeding Secretary, in order that the continuity of section activity may be maintained. He shall be responsible for forwarding all papers and reports given at section meetings to the Secretary-Treasurer of the ASSOCIATION for consideration for publication in the PROCEEDINGS.

Section 8 - The ASSOCIATION may abolish a given section at a regular business meeting by a two-thirds (2/3) majority vote provided a quorum takes action as prescribed in Article VII.

ARTICLE VI - MEETINGS

Section 1 - The ASSOCIATION and its Executive Council shall each hold at least one annual meeting at the time and place designated by the Executive Council.

Section 2 - Special meetings of the ASSOCIATION and/or the Executive Council may be called by the President upon authorization by the Executive Council.

ARTICLE VII - QUORUM

Section 1 - A quorum to conduct ASSOCIATION business at its regular annual meeting, or by mail vote, shall consist of not less than fifteen per cent (15%) of the current membership. No mail vote shall be valid after thirty (30) days from the date upon which the question was mailed by the Secretary-Treasurer to the members for action.

Section 2 - A quorum of the Executive Council shall consist of at least three-fifths (3/5) of the members, including the President, or the President-Elect duly authorized by the President to act for him.

ARTICLE VII - COMMITTEES

Section 1 - Committees shall be designated as President's Committees, Continuing Committees, Standing Committees, and Joint Committees.

Section 2 - President's Committee shall be appointed by the President and expire with his term of office.

Section 3 - Continuing Committees shall be authorized by the membership at regular business meeting, or by mail vote. Continuing Committee members shall be appointed by the President and approved by the Executive Council. A Continuing Committee is one whose assignment extends beyond the term of office for which the President is elected, but which deals with a specific project or problem of terminal nature. Such committees shall continue until discharged by official action of the membership at a regular business meeting, or by mail vote.

Section 4 - Standing Committees shall be authorized by the membership at a regular business meeting, or by mail vote. Standing Committee members shall be appointed by the President and approved by the Executive Council. A Standing Committee is one assigned a given task which, of necessity, extends indefinitely. Such committees shall follow the policy of rotating membership and number of members as determined by the Executive Council, with no person appointed for a period to exceed three (3) consecutive years. Standing Committees presently authorized by the ASSOCIATION are: Constitution; Finance; Foreign Relations; Historical Records; Membership; Necrology; Resolution; Nominations; Convention Program; Policies; and Public Relations.

Section 5 - Joint Committees shall be authorized by the Executive Council and appointed by the President. A Joint Committee is one that deals with a specific project or problem in cooperative relationships with one or more other associations or organizations.

Section 6 - Each Continuing Committee and Standing Committee shall prepare an operating code which is to be approved by the Executive Council.

Section 7 - All committees shall report at each annual meeting as determined by the Executive Council.

ARTICLE IX - PUBLICATIONS

Section 1 - The official publication of the ASSOCIATION is the Proceedings which contains a record of activities carried on throughout the year, culminating in the annual meeting.

Section 2 - The Secretary-Treasurer shall be responsible for editing and publishing the Proceedings as soon as practicable after each annual meeting, and for the distribution of free copies to all members in good standing.

Section 3 - The Secretary-Treasurer shall arrange for the publication and distribution of such other materials as the Executive Council may direct.

ARTICLE X - FINANCE

Section 1 - Monies obtained by the ASSOCIATION shall be allocated to the: (a) operating budget; or (b) permanent fund.

Section 2 - The operating budget shall contain those funds deemed necessary by the Executive Council to carry on the work of the ASSOCIATION throughout the fiscal year, including the annual meeting.

Section 3 - The permanent fund represents those monies that accumulate from time to time in excess of the operating budget. The Secretary-Treasurer shall invest these sums upon recommendation by the Finance Committee (as defined in the following Section) and as approved by the Executive Council.

Section 4 - A standing committee, known as the Finance Committee and conducting its affairs under the direction of the Executive Council, shall: (a) prepare annually the operating budget; and (b) make recommendations to the Executive Council on the investment of surplus funds.

Section 5 - The fiscal year shall extend from Dec. 1, to Nov. 30.

ARTICLE XI - RULES OF ORDER

Section 1 - Except as otherwise specified in this Constitution and By-Laws, Robert's Rules of Order shall govern all parliamentary procedure of the ASSOCIATION.

Section 2 - The President shall appoint a qualified parliamentarian to serve at all official meetings of the ASSOCIATION and Executive Council.

ARTICLE XII - AMENDMENTS

Section 1 - These By-Laws may be amended at any regular or special meeting of the ASSOCIATION, or by mail vote. A favorable vote of two-thirds (2/3) of the members present at a regular or special business meeting, or a majority of the current membership by mail vote, shall be required for amendment; no mail vote shall be valid beyond thirty (30) days after official notification. In either case (regular or special meeting) a quorum must take action as provided in Article VII.

ROLL OF MEMBERS — 1958

(Corrected to March 1, 1958)

*Attended 1957 Convention (1) Past-President (2) Honorary (3) Past Secretary-Treasurer

ALABAMA

Baughman, W. J. PhD	University of Alabama (1948)
Chellman, John, EdD.	University of Alabama (1957)
Clipson, W. F., EdD.	State Teachers College, Troy (1956)
Flowers, H. A., M.A.	State Teachers College, Florence (1948)
Sharman, J. E., M.A.	Howard College (1955)

ARIZONA

*Lavik, R. H., M.A.	Arizona State College (1951)
*Svob, R. S., M.A.	University of Arizona (1957)
Thomson, R. G., EdD.	Arizona State College (1954)

ARKANSAS

Hendricks, Troy, EdD.	University of Arkansas (1949)
Johnson, T. E., EdD.	Arkansas State College (1956)
Moore, G. C., M.A.	University of Arkansas (1954)
Morrow, A. H., M.A.	Philander Smith College (1954)

CALIFORNIA

Adee, Don, PhD.	Chico State College (1947)
*Arce, W. B., EdD.	Pamona College (1958)
*Arnett, Glenn, M.A.	San Fernando Valley State College (1958)
*Bachman, J. C., M. S.	Chico State College (1958)
Beatty, H. J., M.A.	Fresno State College (1957)
*Benton, C. W., M.S.	San Diego State College (1957)
*Bielicki, J. W., M.A.	La Sierra College (1958)
*Bishop, H. A., EdD.	Chico State College (1958)
*Blank, L. B., EdD.	Sacramento State College (1957)
*Boring, W. J., EdD.	Long Beach State College (1953)
*Brown, H. E., PhD.	10 White Plains Ct., San Mateo (1947)(2)
*Bugge, Elwyn, B.A.	Stanford University (1957)
*Burke, R. K., PhD.	Occidental College (1958)
*Campbell, H. W., M.A.	Los Angeles City College (1958)
*Cook, Claude, EdD.	San Fernando Valley State College (1958)
*Cooper, J. M., EdD.	University of Southern California (1954)

*Cratty, B. J., M.S.	Pamona College (1958)
*Crawford, W. H., EdD.	University of California, Riverside (1947)
*Crowe, W. C., EdD.	Long Beach State College (1957)
*Davies, E. R., M.A.	University of Redlands (1958)
*Davis, E. C. PhD.	University of Southern California (1931)(1)
*Dearborn, T. H., EdD.	University of California, Santa Barbara (1958)
DeLotto, M. J., PhD.	Long Beach State College (1958)
*Dunkelberg, J. G., M.S.	Univ. of California, Los Angeles (1957)
*Egstrom, G. H., M.S.	Univ. of California, Los Angeles (1958)
*Ellis, G. W., B.A.	Chula Vista Jr. High School, National City (1958)
*Fernelius, Byrne, M.A.	San Fernando Valley State College (1958)
Fessenden, D. A., EdD.	San Francisco State College (1957)
*Finn, M. M., B.A.	Hollywood Y.M.C.A. (1958)
*Flanagan, Lance, M.A.	University of California (1956)
*Fraleigh, W. P., PhD.	San Jose State College (1955)
*Fredericks, J. W. EdD.	University of Southern California (1934)
*Frey, H. J., M.A.	University of California (1958)
*Gallon, A. J., EdD.	Univ. of California, Santa Barbara (1956)
*Gardner, G. W., M.S.	Univ. of California, Los Angeles (1958)
Governali, Paul, EdD.	San Diego State College (1955)
*Grawunder, R. M., EdD.	San Diego State College (1958)
*Handy, D. T., EdD.	Univ. of California, Los Angeles (1958)
*Harder, Theodore, M.A.	Univ. of California, Santa Barbara (1949)
*Harkness, W. W., M.A.	San Francisco State College (1949)
Hartranft, S. G., M.A.	San Jose State College (1957)
*Henry, F. M., PhD.	University of California (1958)
*Hewitt, J. E., EdD.	Univ. of California, Riverside (1953)
Hollingsworth, Cecil, M.A.	Univ. of California, Los Angeles (1948)
Hubbard, W. V., M.A.	San Jose State College (1957)
Johnson, E. L., EdD.	Whittier College (1953)
*Jones, Frank B., EdD.	Sacramento State College (1957)
*Jumonville, F. J., EdD.	Los Angeles State College (1954)
*Kasch, F. W. , EdD.	San Diego State College (1951)
*Keogh, J. F., M.A.	Pamona College (1957)
*Kovacic, C. R., EdD.	Univ. of California, Davis (1948)
*Lantange, J. E., EdD.	Santa Barbara College (1957)
Lindeburg, F. A., EdD.	Univ. of California, Riverside (1957)
*Logan, G. A., M.S.	Univ. of California, Los Angeles (1958)
*Losee, F. C., EdD.	Los Angeles State College (1957)
*Malan, E. W., M.A.	Pamona College (1958)
*Massey, W. N., PhD.	Univ. of California, Los Angeles (1954)
*McConnell, J. J., PhD.	Long Beach State College (1958)
McCormick, H. J., EdD.	Sacramento State College (1941)
*Metcalf, T. N., M.A.	1208 San Miguel, Santa Barbara (1919) (1) (2) (3)
*Michael, E. D., PhD.	Univ. of California, Santa Barbara (1957)

*Miller, B. W., PhD.	Univ. of California, Los Angeles (1943)
Miller, H. G., M.A.	University of Southern California (1954)
*Montgomery, J. E., EdD.	Long Beach State College (1957)
*Montgomery, R. A., M.S.	George Pepperdine College (1957)
*Moore, K. M., M.S.	Univ. of California, Los Angeles (1958)
*Morehouse, L. E., PhD.	Univ. of California, Los Angeles (1958)
*Mott, R. A., EdD.	California State Polytechnic College (1957)
Nagel, Charles, PhD.	Univ. of California, Los Angeles (1957)
*Napier, W. J., M.S.	La Sierra College (1958)
*Ness, C. O., HSD	Long Beach College (1958)
*Nixon, J. E., EdD.	Stanford University (1949)
*Nordly, C. L., PhD.	University of California (1935) (1)
*Olsen, A. W., M.A.	San Diego State College (1958)
*Palmer, C. L., EdD.	University of Southern California (1953)
*Pape, L. A., EdD.	Fresno State College (1949)
*Pearson, G. B., EdD.	Univ. of California, Riverside (1957)
*Peterson, H. E., EdD.	Chico State College (1958)
*Rich, G. Q., M.A.	University of California (1958)
*Richardson, D. E., EdD.	Univ. of California, Los Angeles (1953)
Rowen, Victor, EdD.	San Francisco State College (1953)
*Royce, Joseph, PhD.	University of California (1956)
*Ruff, W. K., EdD.	Stanford University (1958)
*Runner, T. C., M.A.	University of Redlands (1958)
*Scott, F. L., PhD.	San Diego State College (1958)
*Selin, C. W., PhD.	Univ. of California, Riverside (1957)
*Smith, T. E., EdD.	Fresno State College (1958)
*Snyder, R. A., EdD.	Univ. of California, Los Angeles (1946)
Stagg, A. A., Sr., M.A.	125 Euclid Ave., Stockton (1920) (2)
*Strehle, D. M., M.S.	Univ. of California, Los Angeles (1958)
*Strehle, R. L., M.A.	Pamona College (1958)
*Swisher, I. W., M.S.	Santa Monica City College (1958)
Syverson, Magnas, EdD.	Univ. of California, Los Angeles (1957)
*Terry, W. L., EdD.	San Diego State College (1948)
*Thornton, R., M.A.	Univ. of California, Santa Barbara (1958)
Toomey, I. F., B.S.	University of California, Davis (1935)
*Trieb, C. F., PhD.	Occidental College (1949)
Vandenburgh, W. G., M.S.	Fresno State College (1952)
*Vitti, J. J., EdD.	Sacramento State College (1958)
Walker, G. L., EdD.	San Jose State College (1951)
*Wallis, E. L., EdD.	Univ. of California, Los Angeles (1958)
*Warner, B. E., EdD.	Los Angeles State College (1958)
*Williams, A. E., M.S.	Los Angeles City College (1958)
Williams, J. F., MD.	Carmel, California (1919) (1)(2)
*Wise, A. R., EdD.	Los Angeles State College (1958)
*Wright, E. J. A., DPE	University of Southern California (1958)
*Young, C. H., EdD.	Univ. of California, Los Angeles (1948)
Young, L. F., M.A.	University of Southern California (1957)
*Ziegenfuss, George, EdD.	San Diego State College (1947)

COLORADO

Anderson, R. L., Capt., M.S.	U. S. Air Force Academy (1957)
*Bartelma, D. C., EdD.	University of Colorado (1948)
*Bierhaus, F. W., EdD.	University of Colorado (1957)
Clapp, R. G., MD	1200 S. College Ave., Ft. Collins (1906) (2)
Cyphers, V. A., M.A.	Colorado State College (1957)
DeArmond, M. E., Capt., B.S.	U. S. Air Force Academy (1956)
Doubenmier, J. S., M.A.	Colorado State College of Education (1949)
*Lobdell, Harrison, B.S.	U. S. Air Force Academy (1955)
*MacKenzie, M.M. , EdD.	U. S. Air Force Academy (1951)
McGlothin, W. C., Lt. Col., B.S.	Hq. Pac Air Forces, APO 953, San Francisco (1955)
Myslinski, C. J., M.A.	U. S. Air Force Academy (1957)
Vavra, C. G., B.A.	University of Colorado (1953)
Verducci, F. M. , B.A.	U. S. Air Force Academy (1957)

CONNECTICUT

Barrow, L. M. , EdD.	New Haven State Teachers College (1957)
*Blesh, T. E., PhD.	Yale University (1951)
Fait, Hollis, PhD.	University of Connecticut (1953)
Field, D. A., EdD.	University of Bridgeport (1951)
Kennedy, R. F., MED.	University of Connecticut (1956)
Kiphuth, R. J. H., B.S.	Yale University (1931)
*Martin, J. F., B.A.	Wesleyan University (1924)
McCurdy, H. G., M.A.	Wesleyan University (1925)
Merriman, J. S., BPE	U. S. Coast Guard Academy (1956)
Oosting, Ray, MED.	Trinity College (1927)
Saccone, L. J., B.S.	University of Bridgeport (1957)
Van Bibber, George, EdD.	University of Connecticut (1938)

DISTRICT OF COLUMBIA

Anderson, George, EdD.	A.A.H.P.E.R., 1201 16th St., N.W. (1953)
Anderson, J. M. , PhD.	A.A.H.P.E.R., 1201 16th St., N. W. (1948)
Barnes, S. E., M.A.	Howard University (1951)
Krupa, J. H., EdD.	George Washington University (1955)
*Troester, C. A., Jr., EdD.	A.A.H.P.E.R., 1201 16th St., N. W. (1941)
Tyrance, H. J., PhD.	Howard University (1948)

FLORIDA

Adams, M. K., M.A.	University of Tampa (1955)
*Cherry, H. S., M.A.	University of Florida (1951)
Damron, C. F., Dir. P.E.	University of Florida (1955)
Danford, H. G., EdD.	Florida State University (1947)
Davis, J. F., EdD.	Florida State University (1957)
Kelsey, J. M. PhD.	Miami University (1955)
Mason, J. G., EdD.	Miami University (1948)
Miller, K. D., PhD.	Florida State University (1949)
Moreland, R. B., EdD.	Stetson University (1955)
Price, H. D., PhD.	Florida State University (1947)
Schnell, H. W., M.A.	University of Florida (1951)
Scott, T. M., M.A.	University of Florida (1956)
Stanley, D. K., MED.	University of Florida (1937)
Veller, Don, Dir. P.E.	Florida State University (1956)
Waglow, I. F., MED.	University of Florida (1955)

GEORGIA

Cooper, G. F., Jr., M.A.	Emory University (1950)
*McDonough, T. E., M.A.	Emory University (1937) (1)
Partin, W. C., MED.	Emory University (1956)
Smith, E. B., M.A.	University of Georgia (1947) (1)

ILLINOIS

Bank, T. P., M.A.	Athletic Institute, 209 S. State St., Chicago (1949)
Boydston, D. N., EdD.	Southern Illinois University (1951)
Boycheff, Kooman, PhD.	University of Chicago (1949)
Chrouser, H. C., M.A.	Wheaton College (1953)
Cureton, T. K., PhD.	University of Illinois (1929)
Fenstemacher, W. R., M.A.	George Williams College (1949)
Florio, A. E., EdD.	University of Illinois (1948)
Fordham, S. L., B.S.	University of Illinois, Navy Pier, Chicago (1948)
Gedvilas, L. L., B.S.	University of Illinois, Navy Pier, Chicago (1948)
*Hass, W. L., MED.	University of Chicago (1958)
*Hein, F. V., PhD.	American Medical Association, Chicago (1948)
Hill, E. L., M.A.	Illinois State Normal University (1950)
Hubbard, A. W., PhD.	University of Illinois (1953)
*Jackson, C. O., EdD.	University of Illinois (1948)
*Johnson, R. H., EdD.	University of Illinois (1948)
Jones, J. O., M.S.	University of Illinois (1947)
*Kenney, H. E., EdD.	University of Illinois (1950)
Knapp, C. G., PhD.	University of Illinois (1953)

LeFevre, J. R., EdD.	Southern Illinois University (1956)
Lundeen, V. C., MED.	Augustana College (1950)
Martin, G. A., M.A.	Southern Illinois University (1955)
*Masley, J. W., EdD.	Eastern Illinois University (1947)
McAdam, R. E., PhD.	Northern Illinois State College (1956)
*Merrick, R. D., EdD.	Southern Illinois University (1953)
Miller, L. H., B.S.	University of Illinois, Navy Pier, Chicago (1948)
Moyle, W. J., B.S.	University of Chicago (1955)
Pohndorf, R. H., PhD.	University of Illinois (1955)
*Shea, E. J., PhD.	Southern Illinois University (1947)
Stafford, G. T., EdD.	University of Illinois (1939)
Staley, S. C., PhD.	University of Illinois (1926) (1)
Steinberg, S. S., EdD.	Southern Illinois University (1956)
Steinhaus, A. H., PhD.	George Williams College (1930)
Trevor, D. S., M.S.	Knox College (1954)
Warner, A. P., PhD.	De Paul University (1953)

INDIANA

Annarino, A. A., MPE.	Purdue University (1956)
Antonacci, R. J., EdD.	School City Service, Gary (1949)
Bauer, E. G., M.A.	Valparaiso University (1956)
Bookwalter, K. W., EdD.	Indiana University (1937)
Counsilman, J. E., PhD.	Indiana University (1957)
Cousins, G. F., Dir. P. E.	Indiana University (1955)
Cowell, C. C., PhD.	Purdue University (1947)
*Daniels, A. S., EdD.	Indiana University (1941) (1)
Daugherty, J. B., PhD.	Indiana University (1953)
Endwright, J. R., M.S.	Indiana University (1957)
Erdmann, C. P., M.A.	DePauw University (1949)
Fallon, T. W., M.A.	Notre Dame University (1948)
Frazier, Garland, MED.	Wabash College (1956)
Gingerrich, R. L., M.A.	Goshen College (1950)
Handiford, G. W., Jr., MPe.	Purdue University (1955)
Harvey, R. R., M.A.	DePauw University (1954)
Korsgaard, Robert, EdD.	Ball State Teachers College (1953)
Loveless, J. C., M.A.	DePauw University (1951)
Macholtz, J. D., M.A.	Anderson College (1956)
Marks, W. E., M.S.	Indiana State Teachers College (1956)
McCall, R. A., PhD.	Ball State Teachers College (1953)
Napolitano, D. J., M.A.	Notre Dame University (1948)
Newberg, Sam, Dir. P. E.	Indiana University (1957)
Patty, W. W., PhD.	Indiana University (1949) (2)
Rangazas, E. P., Dir. P. E.	Anderson College (1957)
Scannell, J. A., EdD.	Notre Dame University (1938)
Slater-Hammel, A. T., PhD.	Indiana University (1956)
Struck, R. F., M.S.	Hanover College (1949)
Stumpner, R. L., Dir. P. E.	Indiana University (1957)

*Wakefield, M. C., EdD.	Indiana University (1948)
Yoder, J. H., B.A.	Goshen College (1956)

IOWA

*Alley, L. E., PhD.	University of Iowa (1954)
Beck, E. E., PhD.	Upper Iowa University (1957)
Carter, R. A., BEd.	Graceland College (1953)
Clark, J. R., PhD.	Iowa State Teachers College (1957)
Heilman, C. L. EdD.	Drake University (1949)
Mastropaolo, Joseph, B.S.	University of Iowa (1954)
McCloy, C. H. , PhD.	University of Iowa (1929) (2)
Peterson, C. T., M.S.	University of Dubuque (1938)
Schramm, Al, M.A.	Loras College (1949)
Sills, F. D., PhD.	University of Iowa (1953)
Truesdale, J. C., PhD.	Grinnell College (1949)

KANSAS

Ebel, E. R., PhD.	University of Kansas (1956)
Evans, T. M., M.S.	Kansas State College (1951)
Green, E. E., B.S.	Kansas State College (1956)
*Harper, L. A., EdD.	Ft. Hays State College (1957)
Henry, D. W., M.A.	University of Kansas (1954)
*McCullough, E. D., PhD.	Kansas State Teachers College (1956)
Nowak, T. S., Dir. P. E.	St. Benedicts College (1956)
*Pease, J. M., EdD.	Kansas State Teachers College (1953)
Schnitzer, W. J., EdD.	Kansas State Teachers College (1954)
*Shenk, H. A., EdD.	University of Kansas (1947)
Wauthier, R. A., M.S.	Kansas State College (1956)
*Welch, F. G., M.S.	Kansas State Teachers College (1956)

KENTUCKY

Clay, M. A., EdD.	University of Kentucky (1956)
Hackensmith, C. W., PhD.	University of Kentucky (1938)
Heldman, John Jr., Dir. P.E.	University of Louisville (1948)
Johnson, B. M., B.A.	University of Kentucky (1956)
Jokl, Ernst, MD.	University of Kentucky (1956)
Karsner, M. G., PhD.	University of Kentucky (1956)
McCubbin, W. E., M.A.	University of Kentucky (1955)
*Mendelson, E. J., Dir. P.E.	University of Louisville (1956)
Reece, A. M., M.A.	University of Kentucky (1949)
Seaton, D. C., EdD.	University of Kentucky (1948)

LOUISIANA

Capen, E. K., PhD.	Northwestern State College (1956)

Crawford, M. M., EdD.	Southwestern Louisiana Institute (1958)
Harper, D. S., B.S.	Southeastern Louisiana College (1950)
Kistler, J. W., PhD.	Louisiana State University (1945)
Nesom, G. W., M.S.	Northwestern State College (1947)
Walden, H. E., M.S.	Louisiana College (1948)

MAINE

Costello, R. A., M.S.	Gorham State Teachers College (1956)
Loebs, G. F., M.A.	Colby College (1934)
Lux, L. H., EdD.	Bates College (1947)
Meylan, G. L., MD.	Casco, Maine (1919) (1) (2)
Sabasteanski, F. F., MEd.	Bowdoin College (1953)
Wallace, S. M., B.S.	University of Maine (1931)

MARYLAND

Cochrane, C. R. P. Jr., M.A.	Johns Hopkins University (1954)
Eyler, M. H. PhD.	University of Maryland (1956)
*Fraley, L. M., PhD.	University of Maryland (1950)
Humphrey, J. H., EdD.	University of Maryland (1952)
Husman, B. F., EdD.	University of Maryland (1949)
Massey, B. H., M.S.	University of Maryland (1950)
Minnegan, Don, EdD.	Towson Teachers College (1949)
Turner, M. S., B.A.	Johns Hopkins University (1947)

MASSACHUSETTS

Afflect, G. B.	Springfield College (1948) (2)
Bischoff, D. C., PhD.	University of Massachusetts (1958)
Butova, H. A., M.A.	American International College (1948)
Carpenter, P. R., B.A.	Worcester Polytechnic Institute (1912) (2)
Chaffee, C. C., M.A.	Williams College (1938)
Delahanty, R. J., BPE	Camp Monomy, East Brewster (1927) (2)
Dunbar, H. F., Jr., PhD.	Amherst College (1949)
Friedman, Benny, B. A.	Brandeis University (1956)
Gallagher, H. W., B.S.	Northeastern University (1953)
Granger, R. Z., M.A.	Clark University (1956)
Harmon, J. M., EdD.	Boston University (1933)
Havel, R. C., EdD.	Springfield College (1951)
*Lumley, A. E., M.A.	Amherst College (1947)
Marsh, A. W., MED.	Amherst College (1921) (1)
Morgan, C. W., PhD.	Springfield College (1942)
Palmer, L. R., MED.	Tufts College (1948)
Rostas, S. M., MED.	Amherst College (1947)
Seymour, E. W., EdD.	Springfield College (1949)
Shay, C. T., EdD.	Springfield College (1949)
Sparks, R. E., M.A.	Springfield College (1949)

Whitelaw, R. M., MED.	Massachusetts Institute of Technology (1957)
Yeager, W. S., BPE.	Tufts College (1927) (2)

MICHIGAN

Antonacci, R. J., EdD.	Wayne State University (1949)
Beeman, H. F., M.A.	Michigan State University (1948)
Bennett, Norman, M.A.	Ferris Institute (1956)
Bovard, A. J., B.A.	Michigan College of Mining and Technology (1956)
Dales, G. G., M.A.	Western Michigan College (1956)
Finch, R. W., M.A.	Central Michigan College (1947)
Friedrich, J. A., PhD.	Michigan State University (1956)
*Gary, M. J., M.A.	Western Michigan College (1946)
*Grambeau, R. J., M.A.	University of Michigan (1953)
Herrold, Z. C., M.A.	Central Michigan College (1956)
Hunsicker, P. A., PhD.	University of Michigan (1953)
Karas, Frank, M.A.	Ferris Institute (1953)
Kirchner, R. J., M.S.	Central Michigan College (1956)
Lande, Leon, M.S.	University of Michigan (1956)
Lasch, H. A., M.S.	Kalamazoo College (1949)
*Leibee, H. C., M.S.	University of Michigan (1949)
McCristal, K. J., EdD.	Michigan State University (1948)
*Mitchell, E. D., PhD.	University of Michigan (1930) (1)
Myers, F. H., MEd.	Central Michigan College (1956)
*Olds, L. W., Dr. PH.	Eastern Michigan College (1931)
Olson, H. W., M.A.	Michigan State University (1956)
Riskey, E. N., M.S.	University of Michigan (1955)
Ruffer, W. A., M.A.	Michigan Coll. Mining and Tech. (Sault Br.) (1956)
*Smith, J. W., B.A.	Michigan State University (1956)
Sprankle, D. R., M.A.	Albion College (1956)
Staton, W. M., EdD.	Wayne State University (1951)
Steen, Barney, M.A.	Calvin College (1953)
Theunissen, W. V., Dir. P.E.	Central Michigan College (1956)
Thomas, A. S., Dir. P.E.	Central Michigan College (1956)
Webster, R. W., PhD.	Michigan State University (1941)
Young, R. H., B.S.	Michigan State University (1953) (2)
Zeigler, E. A., PhD.	University of Michigan (1950)
Zenti, R. N. EdD.	Wayne State University (1956)

MINNESOTA

Christenson, I. A., MEd.	Concordia College (1947)
*Donnelly, R. J., PhD.	University of Minnesota (1953)
Heusner, W. W. Jr., PhD.	University of Minnesota (1955)
Keller, L. F., PhD.	University of Minnesota (1922) (1)
Moore, R. B., PhD.	Mankato State Teachers College (1956)

Mueller, C. E., M.A.	University of Minnesota (1953)
Osell, C. R., M.A.	University of Minnesota (1947)
Ostrander, M. E., MEd.	University of Minnesota (1947)
*Piper, R. A., EdD.	University of Minnesota (1937)
*Rickert, L. J., EdD.	University of Minnesota-Duluth Branch (1957)
Wells, W. M., MEd.	University of Minnesota-Duluth Branch (1948)

MISSISSIPPI

McMurray, J. G., PhD.	University of Mississippi (1947)

MISSOURI

Burris, H. C. Jr., EdD.	Washington University (1948)
Eberhardt, W. C., M.A.	St. Louis University (1956)
Hindman, D. A., PhD.	University of Missouri (1938)
Keller, J. O., M.A.	University of Missouri (1949)
Patterson, N. A., M.A.	William Jewell College (1956)
*Peterson, H. D., Dir. P.E.	Northwest Missouri State College (1953)
Stankowski, A. J., M.A.	University of Missouri (1941)
Williams, R. H., M.A.	Park College (1951)

NEBRASKA

Addison, R. A., M.A.	Doane College (1953)
Geir, J. G., M.A.	University of Nebraska (1953)
Good, H. C., M.S.	University of Nebraska (1956)
Gross, E. C., M.S.	University of Nebraska (1956)
Higginbotham, Ed., M.A.	University of Nebraska (1953)
Miller, C. E., M.A.	University of Nebraska (1949)
Rolloff, B. D., MEd.	Dana College (1957)
Wear, C. L., PhD.	University of Nebraska (1953)

NEVADA

*Broten, G. A., EdD.	University of Nevada (1958)

NEW HAMPSHIRE

Evans, H. M., BPE.	Dartmouth College (1941)
Locke, E. A., MD.	Wilton, N. H., (1937) (2)

NEW JERSEY

Coder, A. C., EdD.	Montclair State Teachers College (1958)
Conroy, J. J., EdD.	Princeton University (1949)

Hausser, P. C., Prof. Dip.	Newark College of Engineering (1956)
Misar, E. J., M.A.	Stevens Institute of Technology (1948)
Reed, J. J., M.A.	Princeton University (1950)
Rockafeller, H. J., B.S.	Rutgers University (1932)
Simon, J. M., M.A.	Newark College of Engineering (1956)
Twitchell, A. W., MED.	Rutgers University (1953)
Woods, H. D., M.A.	Fairleigh Dickson University (1958)
Zweidinger, W. E., M.A.	New Jersey State Teachers College (1951)

NEW MEXICO

*Delamater, J. B., M.A.	New Mexico Institute Mining and Technology (1947)
Dickson, J. F., PhD.	Eastern New Mexico University (1956)
Langston, D. F., Dir. P.E.	Eastern New Mexico University (1956)
*Moll, C. S., M.S.	New Mexico A & M (1958)
*Seidler, A. H., PhD.	University of New Mexico (1952)
*Settle, Caskey, EdD.	New Mexico Highlands University (1934)

NEW YORK

Abraham, J. N., M.S.	Hobart College (1955)
Adams, L. C., EdD.	Columbia University (1937) (3)
Alexander, L. A., M.A.	University of Rochester (1931)
Allen, R. L., Dr.PH	State Teachers College, Cortland (1955)
Baley, J. A., PhD.	State University of New York, Cortland (1954)
Balquist, J. W., M.A.	Columbia University (1947)
Begelman, J. D., PhD.	Hunter College (1951)
Begenau, Don, M.A.	Queens College (1956)
*Brownell, C. L., PhD.	Teachers College, Columbia University (1929)
Bruce, R. M., MEd.	U. S. Military Academy (1949)
*Bucher, C. A., EdD.	New York University (1953)
Campbell, D. A., M.S.	State University of New York, Oswego (1955)
Campbell, L. D., EdD.	State University Teachers College, New Platz (1954)
Campbell, Walter, MEd.	University of Rochester (1927) (2)
Corkery, J. J., B.S.	Rensallear Polytechnic Institute (1956)
Davey, J. L., MEd.	C. W. Post College (1956)
Davis, W. D., M.A.	Queens College (1956)
Dekoff, Irving, M.A.	Columbia University (1955)
Doscher, Nathan, PhD.	Brooklyn College (1955)
Elkow, J. D., PhD.	Brooklyn College (1956)
Elliott, E. S., MD.	Columbia University (1931) (2)
Fall, C. R., EdD.	University of Buffalo (1948)
Farina, A. M., EdD.	Brooklyn College (1956)

Feld, A. A., Prof. Dip.	Queens College (1954)
Foglia, G. F., M.A.	Queens College (1954)
Furey, Ralph, M.A.	Columbia University (1946)
Graham, P. S., M.A.	Renssalaer Polytechnic Institute (1955)
Grover, G. H., EdD.	State Department of Education (1954)
Hansen, Canute, DDS.	147-41 38th Avenue, NYC (1926) (2)
Howard, G. W., PhD.	Queens College (1931) (1) (3)
Ilowit, Roy, EdD.	C. W. Post College (1956)
Jones, L. M., PhD.	State University of New York, Buffalo (1930) (1)
Kerr, W. R., MED.	City College of New York (1958)
Kirkpatrick, T. B., M.A.	Columbia University (1931)
Krakower, Hyman, PhD.	City College of New York (1932)
Kroeten, H. J., MED.	U. S. Military Academy (1953)
*Kumpf, H. W., M.A.	Renssalaer Polytechnic Institute (1958)
Larsen, L. A., PhD.	New York University (1943)
Lawrence, K. J., M.A.	Colgate University (1953)
Madden, J. E., EdD.	Brooklyn College (1948)
McLane, J. A., M.A.	Alfred University (1956)
McEvoy, L. T., M.A.	Columbia University (1956)
McNamee, J. J., M.A.	St. Bonaventure College (1949)
Meinhold, A. H., MEd.	Polytechnic Institute of Brooklyn (1955)
Meyers, C. R., EdD.	University of Buffalo (1948)
Moffett, D. C., PhD.	Cortland State Teachers College (1930) On leave.
Montebello, R. A., M.A.	Sarah Lawrence College (1958)
Obeck, V. F., M.A.	New York University (1948)
Oleson, F. A., PhD.	Brooklyn College (1936)
Peck, R. R., M.A.	Teachers College, Columbia University (1957)
Picariello, S. P., M.A.	Long Island University (1955)
Polansky, D. L., M.A.	City College of New York (1953)
Prettyman, A. I., BPE.	Sampson College (1919) (2)
Rathbone, F. S., EdD.	Brooklyn College (1956)
Reilly, C. H., M.A.	Brooklyn College (1956)
Rogers, M. H., EdD.	State University, New York Teachers College, Brockport (1945)
Rohan, J. P., M.A.	Columbia University (1957)
Runkle, R. J., EdD.	Teachers College, Columbia University (1956)
Salmons, Robert, EdD.	Queens College (1954)
Scott, C. D., M.S.	Columbia University (1955)
Scott, H. A., PhD.	Teachers College, Columbia University (1922) (1) (3)
Sebastian, C. I., B.S.	Hunter College (1955)
See, D. A., MEd.	State University of New York, Oswego (1949)
Sells, J. E., M.A.	Columbia University (1958)
*Shaw, J. H., EdD.	Syracuse University (1940)

Sich, J. S., M.A.	Manhattan College (1953)
Smith, J. A., M.A.	Hofstra College (1952)
Smith, J. M., LLB.	Brooklyn College (1956)
Smith, R. H., MEd.	Cornell University (1957)
Spitz, G. B. Jr., EdD.	Queens College (1947)
Stultz, R. E., EdD.	Syracuse University (1946)
Tierney, R. J., M.A.	Queens College (1949)
Vaughan, A. T., B.S.	Columbia University (1956)
Walke, N. S., PhD.	Brooklyn College (1938)
Watt, Thomas, Jr., M.A.	Long Island A & T Institute (1948)
Weber, M. A., M.A.	Hamilton College (1930)
Werner, A.C., M.A.	U. S. Military Academy (1948)
Young, C. V. P., B.A.	Cornell University (1919) (1) (2)
Zuaro, A. C., M.A.	New York University (1954)

NORTH CAROLINA

Allen, E. M. Jr., M.A.	University of North Carolina (1947)
Barrow, H. M., EdD.	Wake Forest College (1949)
Cornwell, O. K., EdD.	University of North Carolina (1931) (1)
Dodson, N. T., P.E.D.	Wake Forest College (1958)
Fetzer, R. A., M.A.	University of North Carolina (1924)
*Jamerson, R. E., EdD.	University of North Carolina (1935)
Miller, J. O., PhD.	East Carolina College (1955)
Scott, Thomas, EdD.	Davidson College (1954)
Shepard, G. E., EdD.	University of North Carolina (1938)
Siewert, F. T., M.A.	West Carolina College (1950)
Townes, R. E., EdD.	North Carolina College (1950)

NORTH DAKOTA

Marti, L. R., MEd.	University of North Dakota (1947)
Stish, E. E., M.A.	University of North Dakota (1957)

OHIO

Ashbrook, W. P., PhD.	Ohio State University (1929)
Bennett, B. L., PhD.	Ohio State University (1948)
Bernlohr, W. F., M.A.	Capital University (1956)
Bibler, R. E., M.A.	Oberlin College (1949)
Butler, L. K., PhD.	Oberlin College (1930)
Clark, R. L. A., M.A.	Oberlin College (1950)
Cooper, S. M., EdD.	Bowling Green State University (1953)
Durand, E. S., M.S.	Youngstown University (1956)
Erickson, C. E., EdD.	Kent State University (1954)
Ersing, W. F., M.A.	Ohio State University (1956)
*Fischer, J. A. Jr., M.A.	Kent State University (1951)
Gauthier, G. E., B.S.	Ohio Wesleyan University (1924) (2)
*Gordin, R. D., M.A.	Ohio Wesleyan University (1954)

Gordon, J. A., M.A.	Miami University (1951)
Gregg, W. H., M.A.	Miami University (1948)
Grice, J. W., M.A.	Oberlin College (1955)
Hendrix, J. W., EdD.	Ohio State University (1954)
Hess, L. A., EdD.	Ohio State University (1950)
Hoover, W. R., B.S.	Kent State University (1947)
Houdeshell, J. D., B.S.	Findlay College (1956)
Jenkins, Sidney, M.A.	Denison University (1949)
Keefe, R. J., EdD.	Bowling Green State University (1952)
Kinsey, D. C., PhD.	Oberlin College (1949)
Kleinman, Seymour, M.S.	Ohio State University (1956)
Knuttgen, H. G., M.S.	Ohio State University (1953)
Koval, Mike, M.A.	Hiram College (1956)
Kretchmar, R. T., EdD.	Oberlin College (1947)
Landis, P. E., M.A.	State Department of Education (1942)
Laughter, R. J., M.A.	Ohio State University (1956)
Livingston, W. J., B.S.	Denison University (1921) (1) (2)
Long, J. W., PhD.	Toledo University (1947)
Mackey, R. T., M.A.	Miami University (1949)
Mand, C. L., PhD.	Ohio State University (1957)
Maurer, H. E., PhD.	Wittenberg College (1956)
Mileham, M. C., M.S.	University of Cincinnati (1938)
*Moore, V. M., M.A.	Kent State University (1949)
Morrison, W. R., ScD.	Oberlin College (1920) (2)
Nessley, C. T., MEd.	Ohio University (1950)
Nichols, J. H., MD.	Oberlin College (1917) (1) (2)
*Oberteuffer, Delbert, PhD.	Ohio State University (1935) (1)
Rafeld, J. W., M.A.	Mt. Union College (1955)
Ray, H. L., M.S.	Ohio State University (1957)
Resick, M. C., M.A.	Kent State University (1948)
Rhoads, A. H., M.A.	Ohio University (1951)
Rider, G. L., B.A.	Miami University (1920)
Schwarberg, W. D., EdD.	University of Cincinnati (1956)
Stevenson, Cliff, B.S.	Oberlin College (1954)
Strimer, R. M., M.S.	Ohio Wesleyan University (1954)
Trepp, J. P., M.A.	Ohio University (1956)
White , R. E., MEd.	Ohio State University (1956)
Widdoes, C. C., B.A.	Ohio University (1956)
Wirthwein, C. J., M.A.	Ohio State University (1957)
Yard, R. N., M.S.	Denison University (1954)

OKLAHOMA

Byrom, J. A., EdD.	Oklahoma State University (1954)
Harrison, A. B., M.S.	Oklahoma State University (1953)
*Keen, P. V., M.S.	University of Oklahoma (1950)
Kevin, J. J., M.A.	Oklahoma State University (1941)
Lander, Robert, EdD.	Northeastern State College (1956)
Record, J. N., M.A.	Phillips University (1955)

OREGON

*Borchardt, J. W., M.A.	University of Oregon (1954)
Brumbach, W. B., M.S.	University of Oregon (1953)
*Clarke, H. H., EdD.	University of Oregon (1931)
*Esslinger, A. A., PhD.	University of Oregon (1947)
*Koski, W. A., EdD.	Oregon State College (1953)
*Langton, C. V. N., EdD.	Oregon State College (1939)
*Livingston, R. C., EdD.	Oregon College of Education (1957)
*Peterson, Alexander Jr., EdD.	Southern Oregon College (1956)
*Raabe, H. W., M.S.	Oregon State College (1949)
*Rhoda, W. P., M.A.	University of Oregon (1950)
*Sigerseth, P. O., EdD.	University of Oregon (1948)
*Sparks, L. J., M.A.	Willamette University (1950)
*Sprague, Vernon, M.A.	University of Oregon (1952)
*Stagg, Paul, PhD.	Pacific University (1958)
*Williams, E. T., M.S.	University of Oregon (1958)

PENNSYLVANIA

Barr, J. S., M.A.	Franklin and Marshall (1954)
Bilheimer, C. E., M.E.	Gettysburg College (1929)
*Conger, R. M., M.A.	Pennsylvania State University (1956)
Corbin, H. D., PhD.	State Teachers College, Lock Haven (1948)
Fogg, S. P., MEd.	Penn State University (1953)
Gardner, R. N., MEd.	Lincoln University (1948)
Glascott, J. A., M.S.	University of Pennsylvania (1953)
Gross, E. A., M.S.	Penn State University (1950)
Hansell, G. A., PhB.	Pennsylvania Military College (1956)
Jones, L. M., PhD.	Penn State University (1930) (1)
*Lawther, J. D., M.A.	Penn State University (1951)
Luehring, F. W. PhD.	University of Pennsylvania (1919) (1) (2)
McCoy, E. B., M.A.	Penn State University (1952)
Meredith, W. F., PhD.	University of Pennsylvania (1941) (1)
Oermann, C. H. PhD.	University of Pittsburgh (1946)
Rivero, Manual, M.A.	Lincoln University (1948)
Runquist, K. C., EdD.	Temple University (1954)
Schott, C. P., PhD.	Penn State University (1929) (1) (2)
Stagg, A. A., Jr., M.A.	Susquehanna University (1941)
Stetson, W. J., M.A.	Swarthmore College (1951)
Sturzebecker, R. L., EdD.	Westchester State Teachers College (1955)
Van Dalen, D. B., PhD.	University of Pittsburgh (1946)
Way, H. P., MEd.	Allegheny College (1939)
Winters, A. R., M.A.	Lafayette College (1926)

RHODE ISLAND

Ciuerzo, P. F., M.A.	University of Rhode Island (1939)
Hefferman, J. M., MEd.	Brown University (1953)
Swain, L. E., M.A.	25 Barberry Hill, Providence (1926) (2)

SOUTH CAROLINA

Dellastatious, J. W., M.S.	The Citadel College (1956)
*Fourier, A. E., M.A.	University of South Carolina (1951)
Silcox, W. A., B.S.	College of Charleston (1950)
Wilhelm, B. H., B.A.	Clemson College (1957)

SOUTH DAKOTA

Emmerich, J. C., B.S.	South Dakota State College
Ginn, R. A., M.A.	South Dakota State College (1957)
Youngworth, C. I., M.A.	Yankton College (1956)

TENNESSEE

Davis, Jennings, Jr., EdD.	David Lipscomb College (1955)
Hobt, A. W., M. A.	University of Tennessee (1929)
Hyden, J. P., B.S.	Vanderbilt University (1949) On leave.
Overall, P. V., M.S.	Tennessee Polytechnic Institute (1947)
Pangle, R. V., MEd.	Peabody College (1956)
Patty, E. K., PhD.	Middle Tennessee State College (1947)
Roberts, L. T., M.S.	East Tennessee State College (1955)
Scott, E. B., Jr., Dir. P.E.	Memphis State College (1956)
Warren, N. L., EdD.	Peabody College (1956)

TEXAS

Alderson, C. J., EdD.	University of Texas (1950)
Andrews, P. M., MEd.	Texas A & M College (1957)
Barlow, T. E., B.A.	University of Texas (1953)
Barr, A. R., M.A.	Southern Methodist University (1948)
Bearden, F. W., EdD.	The Rice Institute (1952)
*Brace, D. K., PhD.	University of Texas (1924)
Brinley, E. D., EdD.	Texas College of Arts and Industries (1943)
Brown, H. S., PhD.	Southern Methodist University (1948)
*Buchanan, H. E., M.A.	Texas Tech (1956)
Hermance, G. L., M.A.	The Rice Institute (1931)
Hester, R. G., M.S.	Austin College (1956)
*Kireilis, R. W., Dir. P.E.	Texas Tech (1953)
Landiss, C. W., EdD.	Texas A & M College (1948)
Mamaliga, Emil, MEd.	Texas A & M College (1957)
McGraw, L. W., EdD.	University of Texas (1953)

*Messersmith, L. L., EdD.	Southern Methodist University (1932)
*Segrest, H. B., M.S.	Texas A & M College (1952)
Standifer, J. W., EdD.	Texas Christian University (1953)
Tishler, C. E., M.A.	Texas A & M College (1948)
*Watson, Jack, EdD.	North Texas State College (1957)
*Weston, Arthur, EdD.	The Rice Institute (1952)
Whitaker, B. M., B.A.	University of Texas (1948)

UTAH

*Bellows, H. A. EdD.	University of Utah (1953)
*Hart, C. J., EdD.	Brigham Young University (1942)
*Hartvigsen, M. F., EdD.	Brigham Young University (1957)
Hunsaker, H. B., M.S.	Utah State University (1949)
Nash, J. B., PhD.	Brigham Young University (1926) (2)
Nelson, D. O., PhD.	Utah State University (1957)

VERMONT

Post, A. T., B.S.	University of Vermont (1936)

VIRGINIA

Dyck, P. B., M.A.	Virginia Tech (1946)
Heidloff, R. C., MPE.	University of Virginia (1934)
Lord, N. F., B.S.	Washington and Lee University (1949)
Ludwig, L. T., MEd.	University of Virginia (1929)
*Reilly, J. H., B.A.	University of Virginia (1958)
Slaughter, E. R., B.S.	University of Virginia (1956)
Willis, H. L., M.E.	Virginia State College (1957)

WEST VIRGINIA

*Duncan, R. O., EdD.	University of West Virginia (1953)
Fox, J. D., M.S.	Potomac State College (1956)
Holter, F. J., PhD.	University of West Virginia (1932) (1)
Sheets, N. L., M.S.	Davis and Elkins (1956)
Yost, C. P., PhD.	University of West Virginia (1956)

WASHINGTON

Bohler, J. F., B.S.	Washington State College (1928) (2)
*Cisek, R. A., B.S.	Western Washington College of Education (1954)
Cutler, R. K., M.S.	University of Washington (1955)
*Dauer, V. P., PhD.	Washington State College (1958)
*Galligan, G. E., EdD.	Washington State College (1947)
House, H. H., PhD.	Box 203, Asotin, Washington (1932)

*Reuter, E. R., M.S.	University of Washington (1951)
*Romney, Golden, PhD.	Washington State College (1958)

WISCONSIN

Denny, A. C., M.A.	Lawrence College (1935)
Francis, R. J., PhD.	University of Wisconsin (1953)
Mansfield, A. W., M.A.	University of Wisconsin (1953)
Masley, A. L., B.A.	University of Wisconsin (1945)
Rarick, G. L., PhD.	University of Wisconsin (1951)
Westkaemper, R. B., EdD.	Wisconsin State College (1956)
Wolf, J. G., PhD.	University of Wisconsin (1950)

CANADA

Blackstock, C. R., B.S.	Pickering College (1948)
Faulkner, J. A., M.S.	University of Western Ontario (1957)
Flynn, M. S. G., B.S.	Sir George Williams College (1955)
Griffiths, M. G., M.A.	University of Toronto (1953)
Kelly, P. C., B.S.	University of New Brunswick (1956)
Kennedy, W. F., M.A.	University of Manitoba (1951)
Lamb, A. S., MD.	Box 55, Ste. Ann DeBellevue, Quebec (1919) (2)
Mitchell, W. F., B.S.	Ontario Agricultural College (1948)
Osborne, R. F., MEd.	University of British Columbia (1948)
*Ryan, H. R., BPE.	McGill University (1950)
Smith, W. D., M.A.	University of Alberta (1949)
Thomas, Paul, M.S.	University of Saskatchewan (1955)
Wipper, K. A. W., B.A.	University of Toronto (1957)
Yuhasz, M. S., M.S.	University of Western Ontario (1954)

HAWAII

*Gustuson, D. I., B.A.	University of Hawaii (1949)
Saake, A. C., PhD.	University of Hawaii (1955)

PUERTO RICO

*Furman, D. C., EdD.	University of Puerto Rico (1948)
Mangual, R. A., M.S.	College of Agriculture and Medical Arts Mayaguez, Puerto Rico (1951)
Sambolin, L. F., M.S.	American University of Puerto Rico (1953)
San Fiorenzo, N. R., B.S.	University of Puerto Rico (1957)
Torregrosa, F. M., M.S.	University of Puerto Rico (1948)

NEW ZEALAND

Smithells, P. A., M.S.	University of Otago (1956)

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